

AR03

ALBERTA GAS TRUNK LINE ANNUAL REPORT 1978



The Company

The Alberta Gas Trunk Line Company Limited, a public company, was incorporated in 1954 by a Special Act of the Alberta Legislature. Its corporate objects include: to act as a carrier and purchaser of gas; to construct pipelines and plants; to purchase and develop hydrocarbon resources; and to engage in the petrochemical business and in manufacturing, engineering and industrial research and development.

AGTL is the major gas transmission company in the province and a principal sponsor of Canadian energy and industrial projects. The Company's Alberta pipeline system incorporates 10 686 km (6,640 miles) of pipeline and carries almost three-quarters of the gas produced in Canada. Its other main investments have been applied in petrochemicals, petroleum and natural gas and manufacturing. The Company is

co-sponsor of Foothills Pipe Lines (Yukon) Ltd., the parent company responsible for construction in Canada of the Alaska Highway Gas Pipeline Project. Other pipeline development projects, both before regulatory bodies, are the Quebec and Maritimes Pipeline Project and the Arctic Pilot Project.

The Company's ownership is widely held; as of December 31, 1978, some 31,798 Class "A" common shareholder accounts and 25,716 preferred shareholder accounts (including 14,722 holding convertible preferred shares) were maintained. Approximately 97% of the Company's shareholders are in Canada, and about one-half of its common shares are held by private individuals with the balance being owned by investment institutions. Its preferred shares are also held by Canadian institutional and individual investors.

Cover Story

THE STORY OF THE MAN AND POLAR BEAR CARVING

(a sculpture in the AGTL art collection)

As told by Henry Evaluardjuk, the sculptor

"There was once a man who was from Akugnik. He would scratch the new born baby's skin so that it would make him a great hunter; this he would do, to only boy babies.

This hunter who scratched the baby's skin was himself a great hunter. He was very stern, since he never smiled at anybody, but that was the way he was.

He also had very powerful dogs. Even though they were old, actually they were the fastest among dogs. The dogs were especially noted for being able to smell polar bear tracks, even when they were miles away. In fact, they were able to track down any sort of animal.

The hunter would know that he could not go home without game. He also knew that the polar bears would not travel far off, being unaware that the hunter was near. Because his dogs were very good at polar bear hunting, he was sure to get one the next day.

When he would go seal hunting, he would come to the seal's breathing holes and he would know by just looking at them whether there were seals using that hole or not.

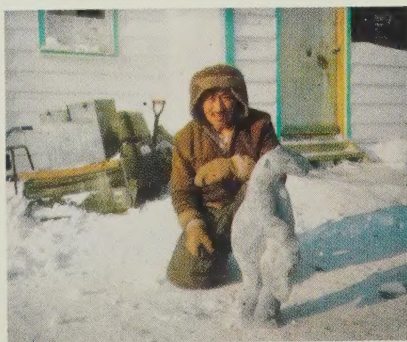
If he had a difficult time with seals, when he finally got one, he would take the seal home alive and put it into the igloo. He would ask the seal: "What took you so long to appear?" or "Why did it take you so long to come up?" When the poor seal looked up and just stared at the kudlik (a small soapstone lamp-stove), then the hunter would throw the kudlik at the seal and that way the seal would die.

This hunter was an expert on hunting; he never hunted with a harpoon, just with a knife. Whenever he was approached by a polar bear, he would just lunge at the polar bear with his knife.

When he was badly attacked by a polar bear, and he ended up with scratches and scars on his body, as soon as he got home, he would tell his wife that the polar bear was trying to get rid of his hunting powers and make him a poor hunter.

This story was told to me when I was a young boy; it never occurred to me that this hunter was my grandfather, who was my father's father.

I want this story to be included with the carving."



Board of Directors

Robin J. Abercrombie
S. Robert Blair
Arthur J.E. Child
J. Joseph Healy
William A. Howard
Harold A. Irving
Peter L.P. Macdonnell
John R. McCaig
Frederick A. McKinnon
A. Ernest Pallister
H.J. Sanders Pearson
Robert L. Pierce
Daryl K. Seaman
Ronald D. Southern

Corporate Officers

S. Robert Blair - President and Chief Executive Officer

Robert L. Pierce - Executive Vice President

Robin J. Abercrombie - Senior Vice President

Dianne I. Narvik - Senior Vice President and Secretary to the Board

William C. Rankin - Senior Vice President and Controller

Ronald D. Dooley - Vice President and Treasurer

Joseph A. Macaluso - Vice President

Bruce W. Simpson - Vice President

George L. Bastin - Corporate Secretary

Division Officers

Gas Transmission Division
Donald G. Olafson - Division Vice President and General Manager

Terry N. Befus - Division Vice President

Douglas R. Hagerman - Division Vice President

V. Bent Kromand - Division Vice President

C. Dale Richards - Division Vice President

Alaska Project Division
William J. Deyell - Division Vice President and General Manager

Murray L. Peterson - Division Vice President

Robert B. Snyder - Division Vice President

Petrochemicals Division
John P. Sutherland - Division Vice President and General Manager

Barry E. Harper - Division Vice President

Officers of the Board

H.J. Sanders Pearson
Chairman of the Board

Dianne I. Narvik
Secretary to the Board

Consolidated Financial Highlights

	1978	1977	% INCREASE
Total revenue	\$ 504,832,000	\$ 365,794,000	38.0
Consolidated net operating income	\$ 173,987,000	\$ 140,470,000	23.9
Net income	\$ 85,631,000	\$ 57,471,000	49.0
Net income per common share			
Basic	\$ 2.31	\$ 1.64	40.9
Fully diluted	\$ 2.14	\$ 1.58	35.4
Dividends paid per common share	\$ 0.7772	\$ 0.7344	
Average number of common shares outstanding	28,361,000	27,421,000	
Additions to plant, property and equipment	\$ 233,154,000	\$ 233,988,000	
Investment in plant, property and equipment	\$1,368,054,000	\$1,110,991,000	
Investment in plant, property and equipment (net)	\$1,137,411,000	\$ 923,420,000	

Report to Shareholders

On April 8, 1954, Royal Assent was given to an Alberta Government Bill entitled "An Act to Incorporate a Gas Trunk Line Company to Gather and Transmit Gas Within the Province". That Bill still provides a base for the operations of your Company, which is celebrating its 25th anniversary in 1979. Although the Company held its first Board meeting in June of 1954 and its first annual meeting in January of 1955, actual construction on the initial gas pipeline system did not begin until December, 1956. It is interesting to note this delay was occasioned by the famous TransCanada PipeLines debate, a steel strike in the United States, and a shortage of skilled labour in Canada.

The formation of your Company was at the initiative of the Alberta Government who wanted the best interests of the Province to be served while allowing the export of its natural gas resources. Because the industry was almost entirely foreign-owned, a stipulation was made that the gathering of gas within Alberta would be done by an Alberta company operating only in the Province, regulated by a provincial agency and owned by private investors through an issue of common equity to residents of Alberta. In due course your Company was listed on the Toronto, Montreal and Calgary Stock Exchanges and today its shares are held very widely across the nation. However, the Company has always remembered the importance of government policy in its formation. The effect of that policy is today a very strong privately-owned Canadian company operating its initial franchise and also developing major projects of benefit to Canada.

In 1969 management of the Company suggested that major growth of Alberta natural gas transmission had an extensive but finite life so that for its long range prospects the Company should seek new business opportunities. The first move in that direction was the beginning of studies on methods to transport Mackenzie Delta gas to southern Canadian markets. Later this was extended to transporting Alaskan gas. The original studies eventually led to an application for a pipeline along the Alaska Highway and subsequent approvals in 1977 and 1978 of that project by the governments of Canada and the United States. In 1974, the Alberta legislature passed substantial amendments to the Company's Act of Incorporation which greatly expanded its powers and objects in order that diversification could be more fully pursued. The Company's management then aggressively followed the new diversification policies approved by its Board of Directors.

We are proud that in our 25th year, we are able to announce record growth and earnings for 1978. Our gas transmission and distribution division showed only nominal growth due to the present situation within the gas industry; however, the petroleum and petrochemicals divisions showed marked increases from 1977. The manufacturing division remained

about level with 1977 due to business interruption in Italy during the spring of 1978.

Consolidated assets of the Company increased 43% from \$1.4 billion at December 31, 1977 to \$2.1 billion at the end of 1978. It is expected this rate of growth will continue and will require the maintaining of higher profits if the Company is to continue to contribute to the Canadian economy in the years ahead.

Total consolidated revenues in 1978 of \$505 million increased 38% over 1977. Operating revenues totalled \$464 million, up 33% over 1977. Revenues in the petrochemical and petroleum divisions accounted for 68% of that increase. Other revenue increased to \$41 million or by 139% principally due to the new equity in earnings of Husky Oil Ltd. and larger allowance for funds used during construction on petrochemical assets.

Net income of \$85.6 million for the year increased by \$28.1 million or 49% relative to 1977. After providing for dividends on all preferred shares, basic earnings per common share for the year were \$2.31, an increase of 41% over the \$1.64 recorded in 1977 (on a fully diluted basis, the respective figures were \$2.14 versus \$1.58 in 1977).

Diversification has proved to be most beneficial to your Company. It may in fact turn out to be the most important decision made in its 25 year history in order to maintain healthy growth for shareholders.

In this annual report, a specific attempt has been made in the divisional comments, toward expressing some complex financial arrangements in layman's language.

Major Developments in 1978

A number of significant events took place during 1978, as described below and covered in more detail in other sections of this report.

- The Company's affiliate Pan-Alberta Gas Ltd. announced it had successfully negotiated a contract with Northwest Alaskan Pipeline Corporation in the United States for the sale of an additional 29.3 million cubic metres (1,040 million cubic feet) per day of Alberta natural gas on a short-term basis. It was further agreed between the parties that this new addition, if approved by the appropriate regulatory bodies, would be shipped through pre-built facilities of the Alaska Highway Pipeline Project, thus facilitating financing and construction of that project. Interim approval for importation of the gas has already been received in the United States and hearings before the National Energy Board are expected to take place this year.

- On April 12, 1978, Royal Assent was given to Bill C-25, an act that created

the Northern Pipeline Agency and facilitated future construction of the Canadian sections of the Alaska Highway Gas Pipeline Project. The Northern Pipeline Agency was in operation by mid-year and works closely with Foothills Pipe Lines (Yukon) Ltd. (50% owned) and its subsidiaries on all aspects of that project. Also in the fall of 1978, the United States Senate and Congress gave approval to President Carter's Energy Bill, which contains provisions in respect to the pricing and treatment of Alaskan gas.

- During the year, much progress was made on construction of the various facilities included in the Alberta Petrochemical Complex. The main ethylene plant is now over 70 per cent complete and the ethane and ethylene gathering systems throughout the province are basically complete. Ethane is now being shipped through the Cochin Pipeline to markets in the eastern United States.

- In June, the Company announced it had acquired the principal minority interest in Husky Oil Ltd. and presently holds 49.5% of that company's shares and is represented on its Board of Directors and Executive Committee. In October Husky announced a new program for the development of its heavy oil reserves in the Lloydminster area, which includes an expanded development drilling program and the future construction of upgrading plants in line with priorities established by the Government of Canada and the provinces of Alberta and Saskatchewan in respect of heavy oil development.

- Three new applications were underway to regulatory boards in late 1978 and early 1979. These were (i) an application by the Company's subsidiary, Q & M Pipe Lines Ltd., for the extension of the natural gas grid from east of Montreal through to Halifax, Nova Scotia; (ii) a preliminary application by Foothills Oil Pipe Line Ltd. (50% owned) to United States regulatory authorities for an oil pipeline from Skagway, Alaska, to Edmonton, Alberta, for the transport of Alaska oil, and (iii) an application to the National Energy Board by Petro-Canada and the Company for the export of Arctic Islands liquefied natural gas. Each of these projects is described in more detail in other sections of this report.

Gas Transmission Division

Growth within the Gas Transmission Division during 1978 was limited due to the lack of new markets for surplus Alberta gas. Demand in Canada was generally lower than previous years and exports to California markets were curtailed somewhat because of a temporary surplus of heavy fuel oils in that area. Total cash expenditures on gas transmission plant (exclusive of interest during construction) were \$64 million, with \$7

million carried over into 1979 for projects started but not completed in 1978.

Regulatory Matters

Two hearings before the Public Utilities Board (PUB) of Alberta were concluded during the year. The hearings resulted from proceedings initiated by a group of oil and gas producers with respect to the Company's method of calculating depreciation and collection of income taxes and its rate of return on rate base for Alberta transmission services.

The PUB issued a Decision on income taxes and depreciation which was not favourable to the Company and would place it at a disadvantage compared to other major gas transporters. The depreciation ruling was subsequently improved by the PUB in an amendment to the initial Order. The Company has obtained from the Alberta Court of Appeal leave to appeal the Orders of the PUB related to income taxes and depreciation and suspension of the operation of these Orders pending the determination of the Appeal. The PUB also issued a Decision reducing rate of return on rate base from 10.75% to 10.55%.

In response to another action in early 1979, the PUB granted an interim order with respect to income taxes similar to its earlier Decision. Leave to appeal the interim order has also been granted. The order is also suspended.

Financial

On June 2, 1978, your Company announced an increase in the dividend of its Class "A" common shares. The quarterly increase of 2.14¢ was a 12% increase and brought the yearly dividend level to 82¢ per share. On March 11, 1979, a further

increase was approved by the Board and the current level of yearly dividends is now 96¢ per share.

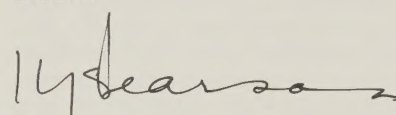
In October the Company successfully completed a \$189 million financing of 6-3/8% Cumulative Redeemable Convertible Second Preferred Shares. This was the largest underwritten equity issue sold in Canada to that date.

Financing was also successfully completed in July for the polyvinyl chloride plant being constructed at Fort Saskatchewan by the Company and Diamond Shamrock Corporation. This financing was in the form of a private placement totalling U.S. \$72.7 million of 8-3/4% secured notes Series A, due December 15, 1999. All elements of the Alberta Petrochemical Complex in which the Company has an interest are now financed.

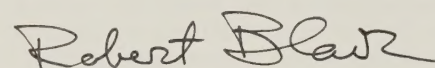
Division Reorganization

In 1978 the Company completed an internal reorganization which allows it to operate on the basis of divisions that report to a central Corporate Management Committee. At the same time, several promotions were announced which included the appointment of nine new vice presidents within general corporate management and the divisions.

We are very optimistic about the future prospects for your Company and hope it is perceived to be an organization that is responsive to all its publics. Special thanks must be given to a very hard-working, loyal group of employees, whose support of management objectives is essential to maintain a vibrant organization. We also thank you, the shareholders, for the strong support shown your Board and management during these years of rapid growth and large capital requirements. Your Company is involved in many high profile, complex projects and we know there is much interest in these involvements. We would like to emphasize that comments or questions are welcomed from our investors and encourage you to contact us should you wish to discuss any of the Company's activities.

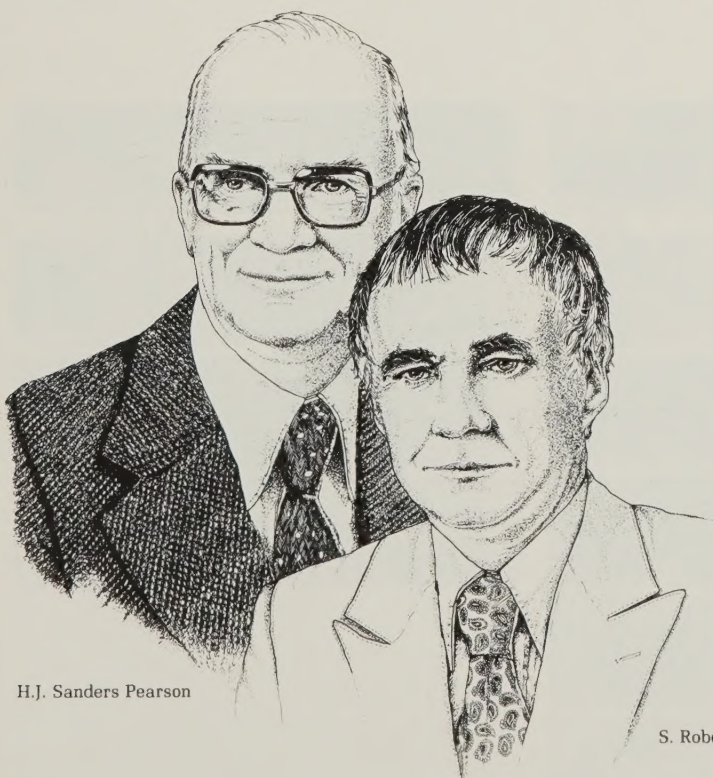


H.J.S. Pearson



S.R. Blair

March 9, 1979, Calgary, Alberta



H.J. Sanders Pearson

S. Robert Blair

Message from the President

A few years ago, the thought developed in the Board of Directors of our Company that a utility organization which benefits from holding one of the dozen important natural gas transmission franchises in Canada could do more in its regional and national community than just concentrate on efficient, economical and universal but specialized services of its franchise.

It was foreseen that such a company could also employ its financing reputation and an active management and professional staff to develop an aggressive industrial organization. Such an organization could contribute initial sponsorship and risk, and subsequent construction management of new projects — new projects fitting both the public purposes of the region and nation and appropriate objectives for long-term growth and security of business base for the Company. Moreover, it could do so in our case as an autonomous, Canadian-owned and western-headquartered company, three ingredients sound to Canadian economic self-determination but relatively scarce within the particular history of Canada as one of the world's developed nations.

Thereby, it was reasoned in our Board, the Company could follow the healthy twin-course of meeting objectives as they would be perceived from time to time and developing new business which would be advantageous in the long run for its shareholders, employees, suppliers and customers.

In the early 1970s when this was thought out, there were noticeably few companies in all of Canada which had the necessary combination of: autonomy for new investment choice; management and professional capability; and capacity to advance \$5 million to \$20 million of risk

sponsorship funds to move on projects of sufficient scale to achieve national or international competitiveness. The noticeably few companies which did exist in Canada were almost all concentrated in Toronto and Montreal as to corporate headquarters and natural regional priorities. We thought it would be good for both Alberta and Canada if a few such organizations began to develop in the West and that Alberta Gas Trunk Line Company could be one.

This intention had its first practical expansion in 1970 when our Company became the operator of the Gas Arctic international group for northern pipeline development. The next step probably was our sharing in founding Alberta Gas Chemicals as an international competitive methanol producer in 1972. A larger and absolutely consistent step became the introduction of our Alberta Gas Ethylene Company in 1974 as owner of the primary production plants for the Alberta Petrochemical Complex. Looking back, it is probably correct that in 1974 ours was still the only company headquartered in the Province with those noted factors of management autonomy, Canadian ownership and financing capacity on hand to carry the necessary elements to create this new industry which will be the most important heavy industrial processing or manufacturing activity in the economy of western Canada.

In the late 1970s some other companies are also emerging as headquartered in Alberta and having similar capacity for contribution to regional and national development. Actually there has become something of a "rush" in this aspect of business development within Canada. Today, there are more major financings and more national projects initiated by com-

panies based in Calgary than for any other city in Canada. We didn't see that happening so quickly when our own thinking was developed in the early 1970s. In any case, development of our own Company has begun to satisfy our ambitions. The theme appears to have been proven sound and it is probably worthwhile to refresh those interested on our objectives.

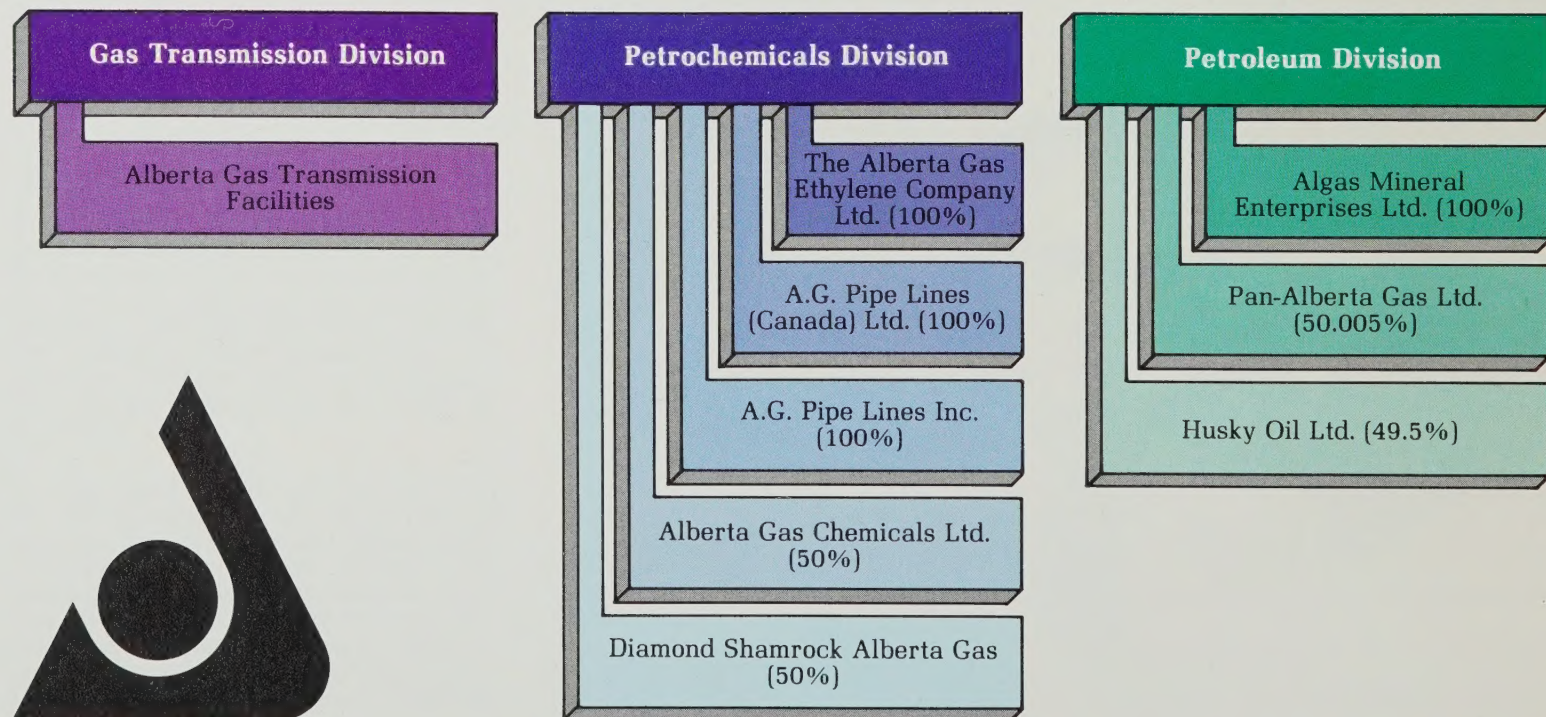
I will take the liberty therefore of repeating some paragraphs in previous annual reports which seem particularly relevant but adding some 1979 remarks in parentheses.

In the 1973 Annual Report we wrote under the heading "Diversification Investments":

"While we are going to do everything that we can to build into our corporate growth the major business of gathering and moving natural gas within and across Alberta, our Company also faces three clear circumstances:

1. This gas transmission business is finite in its extent, in this century or in the next, but still nevertheless finite; (the recent growth of estimates of Alberta's natural gas potential makes me relieved we included the next century).
2. The company which holds a big and lucrative franchise in a province of Canada should do everything it can to advance the economy and the interests of the province by industrial diversification or otherwise as led by provincial government policy; (this continues plus increasing attention to national public policy) and
3. This is a great time of opportunity for Canadian companies which can move

Principal Operations of Alberta Gas Trunk Line



aggressively and independently, especially in the energy field.

This thinking has led to our investment in manufacture of methanol and other commodities through Alberta Gas Chemicals Ltd. and to our sponsorship of a world-scale-plus complex which can manufacture a wide variety of ethylene derivatives in Alberta and to other diversified projects.

Our ground rules for this activity include that the forecast return be greater than that which we presently receive from our gas transmission operations (diversifications have returned more than twice Alberta transmission rate of return so far) and also that each venture have the potential of contributing substantial and early return to the Company's earnings on a pre-tax, consolidated accounting basis. With such self-imposed guidelines, we believe that such diversification will be advantageous to our shareholders at the same time as strengthening the broader industrial base of Alberta and Canada."

Two years later in the 1975 Annual Report and also the Meeting of Shareholders, the basic objectives of the Company were currently reviewed as:

- 1. "To continue aggressively the creation of an Alberta-headquartered, Canadian-owned independent company working within the natural gas service industry, the petrochemical industry and related manufacturing. (now add petroleum)
- 2. In the gas service industry, to provide comprehensive service for all present and prospective sources of gas in Alberta as to gathering, quality control, measurement, transmission, storage, supply and all related functions.

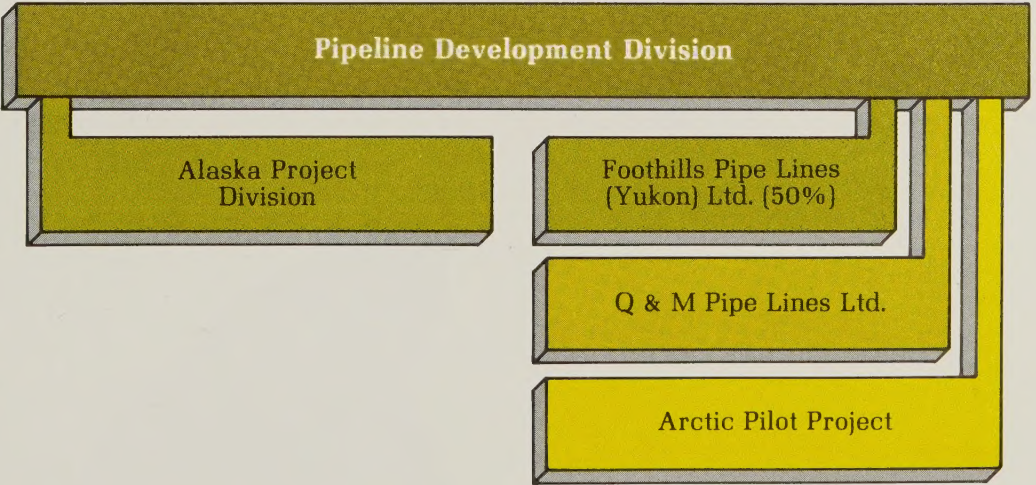
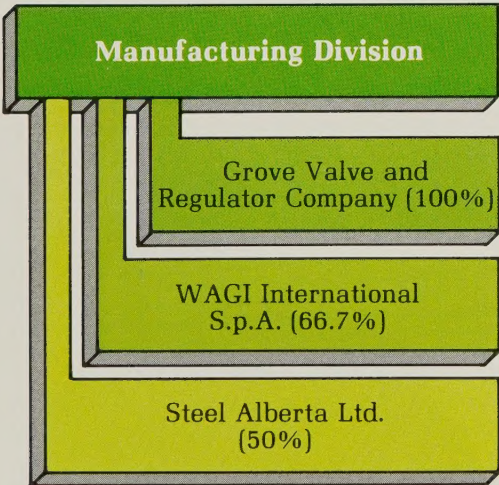
- 3. In the gas service industry, to also negotiate economical use of the Company's expanded gas plant facilities for transmission of arctic gas. (This has been replaced currently by our accepting the express line concept for arctic gas, but obtaining ownership position in the express lines.)
- 4. In the petrochemical industry to obtain feedstock supply in the province, advance engineering payments and risk capital, develop marketing and investment support energetically, and so contribute fundamentally in leadership of this diversification of the provincial economy.
- 5. To invest in manufacturing particularly that related to natural gas and petrochemical developments, toward improving the supply of materials and equipment, and generally promote the business strength of Western Canada."

In retrospect in early 1979, those earlier statements mostly fit present circumstances. The main improvement in our thinking has been to invest in a broader way in the petroleum industry, by example of our 1978 participation in Husky Oil Ltd., and to proceed further with projects in other parts of Canada, such as the Q & M pipeline proposal and the Arctic Pilot Project participations.

The Q & M proposal would result in considerably expanded future markets for Alberta-produced natural gas as well as major economic development in mainland Canada east of Montreal and long-term security of energy supply for about one-third of the present population of Canada; so that one represents a mixing of our traditional pre-occupation with Alberta development with involvement with the most eastern regions of mainland Canada.

I hope that these notes will be useful to those interested in our Annual Report series to remind a bit on where we have come from and the general direction in which this Company is headed for its future.

Robert Blair
S.R. Blair



General Programs



United Way

Corporate Contributions

In the area of corporate contributions, the Company spent approximately \$450,000 in support of about 235 organizations and institutions. As in previous years, the major categories to which funds were allotted were health and welfare, arts and culture and education. The following highlights some of the areas in which the Company contributed during the year.

In the health and welfare field, the Company purchased some new equipment for the workshop of the Rehabilitation Society of Calgary for the Handicapped. This equipment is necessary for vocational rehabilitation of clients and facilitated an increase in volume of packaging



Junior Achievement

business and job placement of clients. The United Way campaign of several centres continued to be the main recipients of the Company's contributions with a total of \$85,000 allocated to five cities and surrounding regions.

In the arts and culture field, the Company sponsored the world premiere of a play by Calgary playwright, Mary Baldrige. The Mary Shelley Play was produced by Theatre Calgary and production of this play was supported to encourage strong regional theatre.

In 1978 the Company made a contribution to the building fund of Junior Achievement of Southern Alberta. The building houses training facilities, adequate workshops and offices, exhibition areas and a central administration headquarters.

A contribution was also made for the production of a book to celebrate the 75th birthday of the Province of Alberta. The book, produced by Hurtig Publishers of Edmonton, is scheduled to go on sale in September 1979.



Alberta, a celebration

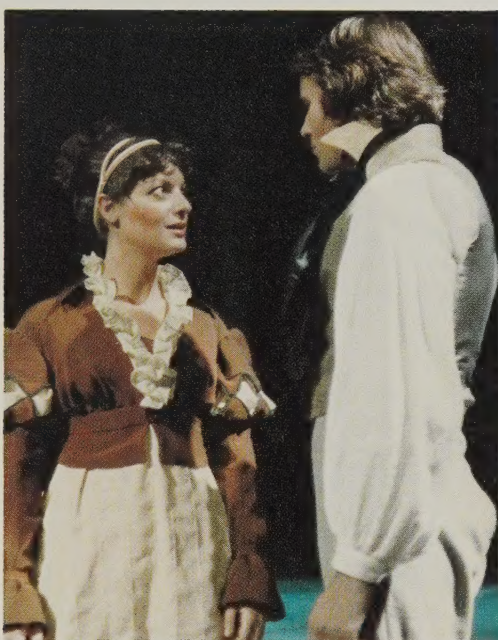
A large contribution to a building fund for the Calgary Indian Friendship Centre was made in conjunction with other Calgary and national corporations. An investigation of needs for Indian people shows the urgency of supporting such a centre and the services it provides.

The Gas Transmission Division of the Company administered contributions to various rural and small community associations in Alberta where the Company has operations or staff.

Art

The Company has embarked upon an art collection primarily of paintings and sculpture. It is hoped this will form the basis of a collection of a calibre which will enable it to go on exhibition across Canada and be enjoyed by many people. A conscious decision was made that the collection have an international flavor, rather than having exclusive Canadian or Western Canadian content, in the belief that it is beneficial for a country to have some major international works of art.





Theatre Calgary

Human Resources

In the Human Resources Department of the Company, particular emphasis has been placed on the development of programs designed to identify and develop the managerial skills required by the Company now and in the future. The Human Resources Department provides an "in-house" consulting service to assist managers to plan organizational change and to develop the maximum potential of their staff. Work is being done to encourage the development of a management expertise which is responsive to the needs of a dynamic company.

In the area of an effective employee-employer relationship, a number of activities are planned or underway. These include a retirement counselling program



Environmental concerns

and further nurturing of the relationship between the Company and its Employee Relations Council. Co-ordination of affirmative action planning is an ongoing effort to provide Alberta Indians and Metis with an equal opportunity to obtain industrial employment.

The Environment

The Company has adopted what it believes to be sound environmental guidelines and policies since construction of its initial mainline system. It was



Northern Training Program

the first company in Canada to practise top soil conservation in pipeline construction and also one of the first to revegetate right-of-way in forested areas by seeding the disturbed soil to grass. It has an in-house group of environmental personnel who direct or apply environmental protection requirements to applicable facets of the Company's operation.

In 1978 the environmental personnel continued to establish and implement environmental standards. The primary emphasis of this group during the year was in reclamation of pipeline rights-of-way and in stabilization of slopes. The environmental protection group conducted a series of awareness lectures for field personnel to demonstrate the most effective ideas of environmental protection and pipeline integrity. The group also was involved at various stages in activities of the Alaska Project Division, Q & M Pipe Lines Ltd., the Arctic Pilot Project and The Alberta Gas Ethylene Company Limited.



Left to Right:

Mother and Children by David Panneok

Polar Bear and Cub by Lucassie Nowdla

Polar Bear by Prime Okalik

(sculptures in the AGTL art collection)

Gas Transmission Division

Alberta Gas Transmission Facilities

The Gas Transmission Division has approximately 1125 full time employees dedicated to the construction, operation and administration of the Company's gas transmission system in Alberta. At the end of 1978 the system comprised approximately 10 686 km (6,640 miles) of pipeline, ranging from 88.9 mm to 1067 mm (3 inches to 42 inches) in diameter, 33 compressor stations with a combined site power rating of approximately 364 000 kW (490,000 horsepower) and approximately 480 receipt meter stations and 45 major delivery stations.

In 1978 the system transported approximately 70 per cent of all gas produced in Canada and 96 per cent of all gas authorized for export from Alberta.

The Division is subdivided into five groups — system development, engineering and construction, operations, materials administration and financial services.

System Development

Responsibilities of this group expanded in 1978 to include monitoring and coordination of the Division's involvement in regulatory proceedings. Other responsibilities include determining and allocating charges for service provided to customers, long range facility planning, hydraulic design of facility additions and system modifications.

In 1978 a forecasting model which will identify current and future natural gas supply and demand trends was initiated. Although the model will not be fully operational until mid 1979, it has already supplied backup information for the Company's submission to the National Energy Board's hearing on Gas Supply and Requirements. Information gathered for the Company's submission to the Alberta Energy Resources Conservation Board's proceeding on Ultimate Reserves of Gas and Co-Products will be used for additional input to the model. The model will also provide information for long range facility planning and facility applications.

Engineering and Construction

This group completed the detailed design and construction of approximately 560 km (350 miles) of pipeline and construction or modification of approximately 40 meter stations in 1978. The most significant pipeline expansion was 130 km (80 miles) of 762 mm (30 inches) loop in the Peace River area enabling further development of gas reserves in the north-west part of the province.

Several improvements to the system were implemented in 1978. A facility using waste heat extracted from the exhaust of two compressor units, was placed in service at Princess compressor station to heat the station buildings, fuel gas and three adjacent company houses.

Another improvement was the development of a hub radio system enabling flow data recorded at a meter station to be transmitted via radio waves to a centralized location. From here information is to be transmitted to the gas control centre via telecommunications.

The Company purchased a mobile pull-down compressor which will be delivered in early 1979. It will facilitate the conservation of gas that is normally vented to atmosphere in a segment of pipeline that is taken out of service for maintenance or repair.

Operations

The operations group, consisting of approximately 420 employees located in forty towns throughout Alberta and 295 employees located in Edmonton and Calgary, has the responsibility of day-to-day operation and maintenance of field facilities.

In 1978 maintenance personnel developed special equipment which enabled a large turbine casing to be machined in place at a compressor station. Historically, work of this magnitude required that the compressor unit be dismantled and returned to the factory. By completing such work in place the Company can save from three to five months in facility downtime and as much as \$300,000 in expenses for each occurrence.

Gas received into the system in 1978 was in the order of $52.5 \times 10^9 \text{ m}^3$ (1,864 billion cubic feet), slightly lower than 1977 receipts; however, a maximum daily receipt of $187.5 \times 10^6 \text{ m}^3/\text{d}$ (6,656 million cubic feet per day) on December 29 was the highest recorded in the Company's operating history.

Operating Highlights

	1978	1977	% INCREASE (DECREASE)
Average rate base (\$000)	657,946	583,673	12.7
Average rate of return (%)	10.55	10.406	1.4
Length of pipeline (km)	10 686	10 021	6.6
(mi.)	6,640	6,228	
Compression (kW)	363 632	359 696	1.1
(HP)	487,634	482,360	
Receipts (10^9 m^3)	52.504	54.070	(2.9)
(MMcf)	1,863,557	1,919,147	
Maximum day receipts ($10^3 \text{ m}^3/\text{d}$) ...	187 526	182 370	2.8
(MMcfd)	6,656	6,473	
Average day receipts ($10^3 \text{ m}^3/\text{d}$)	143 856	148 139	(2.9)
(MMcfd)	5,106	5,258	



762 mm (30 inches) pipeline construction near Peace River.



ALBERTA GAS TRUNK LINE

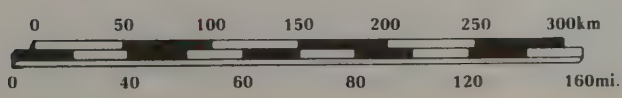
Gas Transmission Facilities



Existing Pipelines



Compressor Stations



Materials Administration

The Company uses a computer based materials management system which provides an integrated approach to the identification of material requirements, purchase of construction and maintenance materials, expediting and the control of inventories. This system was successfully used in the purchase of approximately \$30 million worth of goods from over 1,000 suppliers in 1978.

Financial Services

Included in this group are the accounting and computer services departments. The services provided by these two departments have grown over the years and with the addition of a new computer in 1978 the computer services department operates and maintains the largest computer facility in Calgary.

Regulatory Activities

In 1978 the Gas Transmission Division was heavily involved in regulatory proceedings. Two hearings were conducted by the Public Utilities Board of Alberta as a result of complaints filed pursuant to the provisions of section 30 of The Alberta Gas Trunk Line Company Act.

The first complaint filed in mid-1977 was with respect to the Company's depreciation rates and treatment of income taxes. The following were the producers involved.

- Amoco Canada Petroleum Company Ltd.
- Canadian Superior Oil Limited
- Chevron Standard Limited
- Gulf Oil Canada Limited
- Hudson's Bay Oil and Gas Company Limited

- Imperial Oil Limited
- Mobil Oil Canada, Ltd.
- Shell Canada Resources Limited
- Texaco Exploration Canada Limited
- Union Oil Company of Canada Limited

Evidence was heard in March 1978. Prior to the Board rendering its Decision, the Company applied for and was denied, by a Board Decision rendered in September, 1978, a rehearing of the complaint. The Board rendered its Decision on the complaint on November 8, 1978.

The Board ordered that the Company include in its cost of service for the twelve-month period ending December 31, 1978, depreciation expense at the composite rate of 2-1/2% and income taxes payable in respect of that year computed on the flow-through basis.

Arising from the implications and practical difficulties in implementing this Decision the Company applied to the Public Utilities Board on November 14, 1978, for a review and variance of the Decision and an interim order suspending the operation of the Decision. An order granting the review and variance hearing and suspending the operation of the Decision until December 31, 1978 was granted.

The review and variance hearing took place on December 4 and 5, 1978 and resulted in a Decision of the Board rendered on December 21, 1978 clarifying the November 8 Decision. The clarifying Decision instructed the Company to calculate its depreciation charges in the same manner used immediately prior to November 1, 1975. This results in a composite depreciation rate of approximately 3.7%. The clarifying Decision made no change in the Board's Decision in respect of income taxes.

In January, 1979, the Company applied to the Appellate Division of the Supreme Court of Alberta for leave to appeal all of the Public Utilities Board's Decisions related to taxes and depreciation and at the same time applied for suspension of the Public Utilities Board's Orders rendered on November 8 and December 21, 1978. Both leave to appeal and the suspensions were granted.

The second complaint filed in December 1977 was with respect to the Company's rate of return incorporated into the calculation of its cost of service. The following were the producers initiating the complaint:

- Amoco Canada Petroleum Company Ltd.
- Aquitaine Company of Canada Ltd.
- B.P. Exploration Canada Limited
- Canadian Occidental Petroleum Ltd.
- Canadian Superior Oil Ltd.
- Chevron Standard Limited
- Gulf Oil Canada Limited
- Hudson's Bay Oil and Gas Company Limited
- Imperial Oil Limited
- Mobil Oil Canada, Ltd.
- Ocelot Industries Ltd.
- PanCanadian Petroleum Limited
- Shell Canada Resources Limited
- Sun Oil Company Limited
- Union Oil Company of Canada Limited

Other complainants were:

- Alberta and Southern Gas Co. Ltd.
- Consolidated Natural Gas Limited
- TransCanada PipeLines Limited

A Public Utilities Board hearing commenced in June 1978 and a decision was issued on December 21, 1978, which reduced the rate of return component from 10.75% to 10.55% per annum on



Automatic welding, 762 mm (30 inches) pipeline construction near Peace River.

METRIC CONVERSION TABLE		
IMPERIAL UNITS	SI UNITS	CONVERSION FACTOR
miles (mi.)	kilometres (km)	1.609 344 km/mi.
thousand cubic feet (MCF)	cubic metres (m³)	.028 173 99 10³ m³/MCF at 15°C + 101.325 kPa
million cubic feet (MMCF)	10³ cubic metres (10³ m³)	
billion cubic feet (BCF)	10⁶ cubic metres (10⁶ m³)	
trillion cubic feet (TCF)	10⁹ cubic metres (10⁹ m³)	
pounds (lbs.)	kilograms (kg) megagrams (Mg)	.453 592 kg/lb.
barrels (bbls.)	cubic metres (m³)	.158 987 m³/bbls.
short tons (2,000 lbs.)	tonnes (t) kilotonnes (kt) megatonnes (Mt)	.907 185 t/ton
acres	hectares (ha)	.404 686 ha/acre
horsepower (Hp.)	kilowatts (kW)	.745 700 kW/Hp.



the net rate base, effective for the twelve-month period ending December 31, 1978. The appropriate adjustments were made to the December 1978 billings in accordance with earlier agreements with the customers.

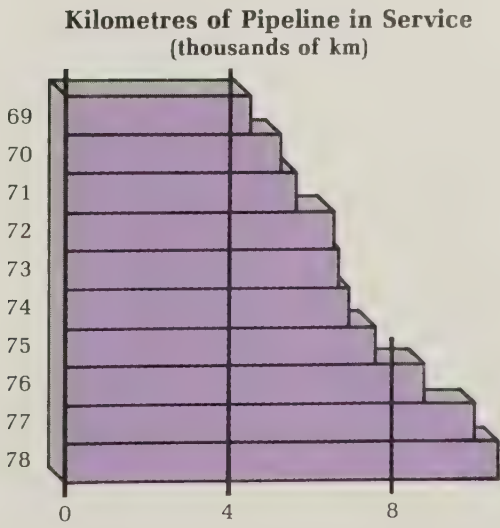
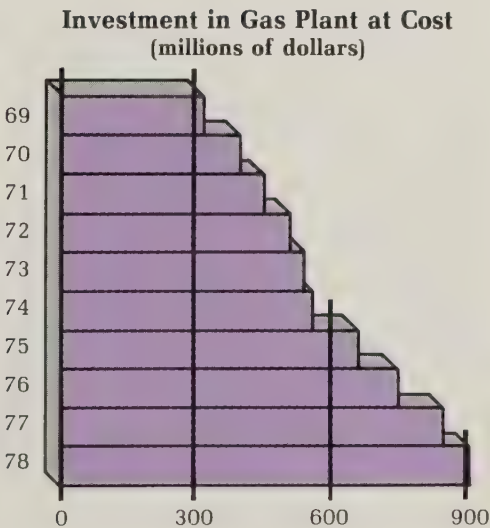
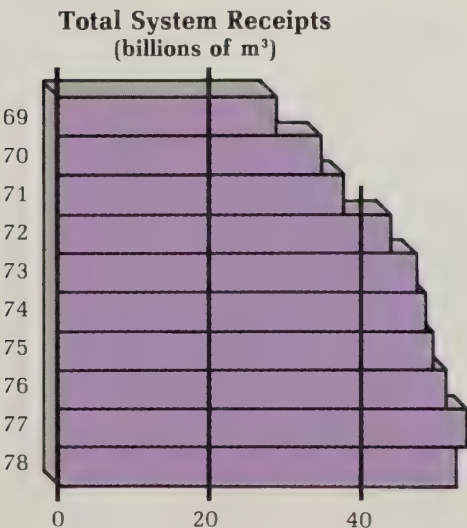
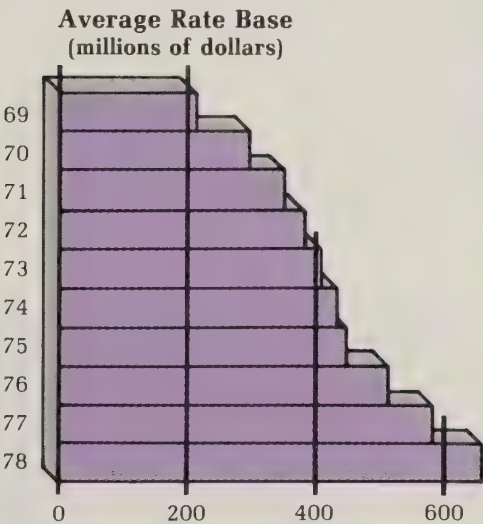
In January 1979 the Company continued billing income taxes on a normalized basis (including past deferred taxes) for all customers. Several producers filed a complaint as well as an application for an interim order specifying flow-through taxes. On February 6 the interim order was granted by the Public Utilities Board. The Company immediately applied to the Appellate Division of the Supreme Court of Alberta and obtained leave to appeal and a suspension of that order.

Algas Engineering Services Ltd.
Algas Engineering provides the consulting arm of the Company. Major projects in 1978 included the design, procurement of materials and construction supervision of approximately 180 km (110 miles) of ethylene pipeline from Joffre, Alberta, to Fort Saskatchewan, Alberta, and pre-permit activities associated with the Arctic Pilot Project.

Algas Engineering is also actively seeking participation in international projects. In 1978 the Company became involved as a participant in the initial stages of tender preparation on two such projects. The results of this work will not likely be known until late 1979.



Coat and wrap, 762 mm (30 inches) pipeline construction near Peace River.



Petrochemicals Division

The Alberta Gas
Ethylene Company
Ltd. (100%)

A.G. Pipe Lines
(Canada) Ltd. (100%)

A.G. Pipe Lines Inc.
(100%)

Alberta Gas Chemicals Ltd.
(50%)

Diamond Shamrock Alberta Gas
(50%)

Alberta Petrochemical Complex

During 1978 The Alberta Gas Ethylene Company Ltd., a wholly-owned subsidiary of the Company, continued with construction of a \$370 million ethylene plant at Joffre, Alberta. This plant has a design capacity of 544 kt/a (1.2 billion pounds per year). By year-end plant construction was approximately 72 per cent complete. Capital expenditures continue to remain on budget and plant start-up is projected for the fall of 1979.

Through 1978 Alberta Gas Ethylene was actively recruiting employees to operate the plant. By year-end the permanent staff had reached approximately 70 employees, most of whom are involved in a broad range of training programs. The full complement at Joffre will be about 135 persons.

Dow Chemical of Canada Limited has agreed to purchase the plant's entire production under a long-term take or pay contract. The financing of the ethylene plant as arranged by Alberta Gas Ethylene has been structured on a project basis using primarily the credit provided by a mortgage on the plant and assignment of the "all events" take or pay Ethylene Sales Agreement with Dow Canada. The payments under this contract have been guaranteed by Dow Chemical Company. In addition, Dow Chemical has directly guaranteed the long-term financing placed with a consortium of U.S. lenders. This borrowing covers up to 88% of project costs and has been supplemented with a further subor-

dated borrowing of \$30 million. Revenues from the Ethylene Sales Agreement are on a cost of service basis and allow for a 20% after tax return on a deemed 25% equity. Since the project financing is leveraged more than this, the rate of return on the Company's actual equity investment will exceed 20%.

The financing also incorporates the use of income debentures placed with a consortium of Canadian chartered banks. Use of this after tax instrument has reduced the nominal interest rate of 8-1/4% on the long-term financing to 5-3/8% for the initial period of about seven years, at which time Alberta Gas Ethylene will become taxable and revert to the 8-1/4% rate. These considerable interest rate savings are reflected in the cost of service and materially lower the cost of ethylene over the early period in the project's life. The company is very confident of its competitive position in the petrochemical industry and is actively investigating the commercial opportunities which will lead to the construction of a second ethylene plant in the near future.

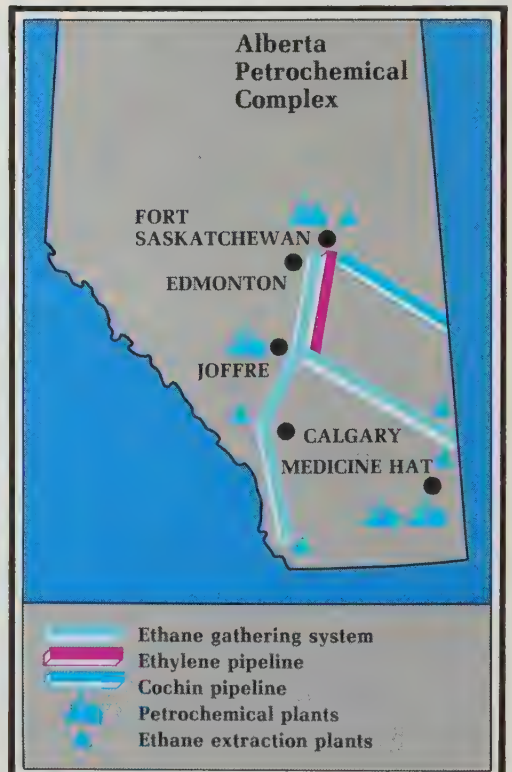
During the year the ethane feedstock supply system was extended to include the Shell Canada Limited extraction plant at Waterton. This is in addition to two extraction plants at Empress and one each at Cochrane and Edmonton. This extension has increased the ethane supply under contract to a nominal 13 514 m³/d (85,000 barrels per day) from 12 719 m³/d (80,000 barrels per day). At year-end the system was moving approximately 7949 m³/d (50,000 barrels per day). Some of the ethane is being used for miscible flooding operations in Alberta, but the bulk of it is being delivered to the Cochin Pipeline. The ethane gathering system is operated by a joint venture equally own-



One of two AGCL methanol plants near Medicine Hat, Alberta.



DSAG polyvinyl chloride plant under construction, Fort Saskatchewan, Alberta.



ed by a subsidiary of the Company, A.G. Pipe Lines (Canada) Ltd., Dome Petroleum Limited and Alberta Energy Company Ltd.

The 544 kt (1.2 billion pounds) of ethylene to be produced at Joffre will be moved by an ethylene pipeline, currently 85 per cent complete, to Fort Saskatchewan where Dow Canada will upgrade approximately 318 kt (700 million pounds) to vinyl chloride monomer and ethylene oxide-ethylene glycol. Lesser quantities will be delivered to a vinyl acetate plant under construction by Celanese Canada Ltd. and a polyethylene plant operated by Canadian Industries Ltd. The remaining ethylene will be transported through the Cochin Pipeline to markets in eastern Canada.

The 3010 km (1,870 miles) Cochin Pipeline was completed on schedule and within budget, and began operation in mid-1978. By year-end it was delivering approximately 9539 m³/d (60,000 barrels per day) of ethane and propane to markets in the United States. During the year Shell Canada Limited acquired a 5% interest in the Cochin Pipeline. The remaining interest is now held through subsidiaries as to 32-1/2% by Dome, 32-1/2% by Dow Canada, 20% by the Company and 10% by Pacific Petroleums Ltd.

The Company's investment in the ethane gathering system and the Cochin Pipeline amounts to approximately \$89 million. Cost of service payments from the Cochin Pipeline include an approximate return of 25% to a deemed 25% equity component. The Company's actual equity investment is closer to 10% of the total capital employed so the actual return will be greater than 25%.

The Diamond Shamrock Alberta Gas limited partnership, equally owned by the Company and Diamond Shamrock Canada Ltd., is constructing a polyvinyl chloride plant near Fort Saskatchewan. This plant, expected on stream late in 1979, will use vinyl chloride monomer feedstock from Dow Canada and have the capacity to produce 100 kt/a (220 million pounds per year) of product. The economic return from this joint venture will substantially depend on the margin between the feedstock and product prices and that margin has improved over the past year.

Alberta Gas Chemicals Ltd.

Alberta Gas Chemicals Ltd., in which the Company has a 50% interest (the other 50% is held by Allarco Developments Ltd.), has completed a fourth successful year of methanol production from the two 544 t/d (600 tons per day) world-scale plants located at Medicine Hat, Alberta. Production from only one of these facilities has served to make Canada self-sufficient in methanol.

Production for the full year has been at maximum rates in an attempt to supply burgeoning market demands throughout the world. In some instances, this has forced a curtailment of supply to certain markets. Plans to construct a third and a fourth plant are continuing.

In 1978 Alberta Gas Chemicals faced an anti-dumping charge filed by the firm of E.I. duPont de Nemours & Company. The hearings on this charge are underway with an eventual decision expected in the spring of 1979. Plans to commit to construct a third plant will likely depend on the outcome of this hearing, and, of course, are dependent on arranging suitable financing and gas supply.

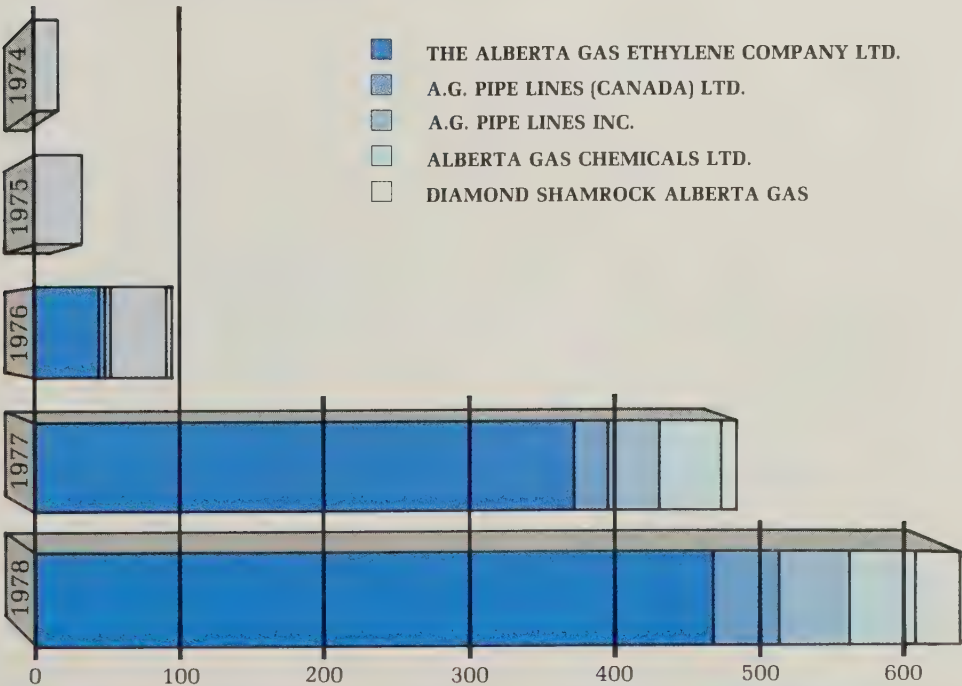
The malic and fumeric acid plant of a subsidiary company, Alberta Gas Chemicals, Inc., located in Duluth, Minnesota, operated below capacity during the year, primarily as a result of lower demand. This company produces a high quality product which continues to achieve market penetration in the U.S. and Europe.

In the interest of maximizing income, the bank loans used to finance the construction of the two methanol plants were converted to income debentures. Although the attendant non-deductibility of interest causes a slightly higher income tax liability, the lower interest costs will result in a net gain to the company in terms of cash flow and net income.

Certain guarantees of the initial bank loans by Allarco Developments Ltd. and Alberta Gas Trunk Line were released in early 1979. Further, the capital contributions by both companies, which represented \$1 million of greater contribution by the Company, are now equalized. Under the conditions of the initial shareholder agreement, this allows each shareholder to appoint the same number of directors to the board.

A major objective of Alberta Gas Chemicals is to ensure the lowest cost of natural gas feedstock. The company has been able to accomplish this to date through special arrangements with a number of producers at less than the export price.

Petrochemicals Division Assets
(millions of dollars)



AGTL'S PERCENTAGE INTEREST IN THE GROSS ASSETS OF SUBSIDIARIES AND AFFILIATES



AGECL ethylene plant under construction, Joffre, Alberta.

Petroleum Division

Algas Mineral Enterprises Ltd. (100%)

Pan-Alberta Gas Ltd. (50.005%)

Husky Oil Ltd. (49.5%)

The Company's main interests in this division are represented by its 49.5% ownership in Husky Oil Ltd. and its 100% ownership of Algas Mineral Enterprises Ltd. Husky Oil operates as a completely separate entity and its financial results are accounted for on a one-line equity basis. Also reported under this Division are the activities of Pan-Alberta Gas Ltd. (50.005% owned).

Husky Oil Ltd.

On June 27, 1978, the Company announced it had acquired approximately 35% of the common shares of Husky Oil Ltd. through open market purchases. Since that time the Company has increased its ownership to 49.5%; however, it has not made any decision to proceed to a level over 50%. As stated in June, it is possible it would be beneficial to increase this shareholding and that possibility would then be considered on its merits.

Shortly after the acquisition of the principal minority interest, three members of the management of the Company were appointed to the Husky Board and representatives were also appointed to its Executive Committee.

In October Husky announced it had committed to a \$450 million, five year program for the accelerated development of its heavy crude oil reserves in Alberta and Saskatchewan, to begin in early 1979. The objectives of the program are to establish the production potential of the area utilizing present technology and to demonstrate the applicability of thermal recovery methods to the heavy oil reservoirs. The program also includes preliminary activity and detailed engineering for the construction of a heavy oil upgrading facility near Lloydminster, Saskatchewan. The financing for this program will come from internally-generated funds and bank borrowings.

The Company fully supports this accelerated program for heavy oil development and in fact committed itself to that task at the time of its purchase of a principal minority position in Husky.

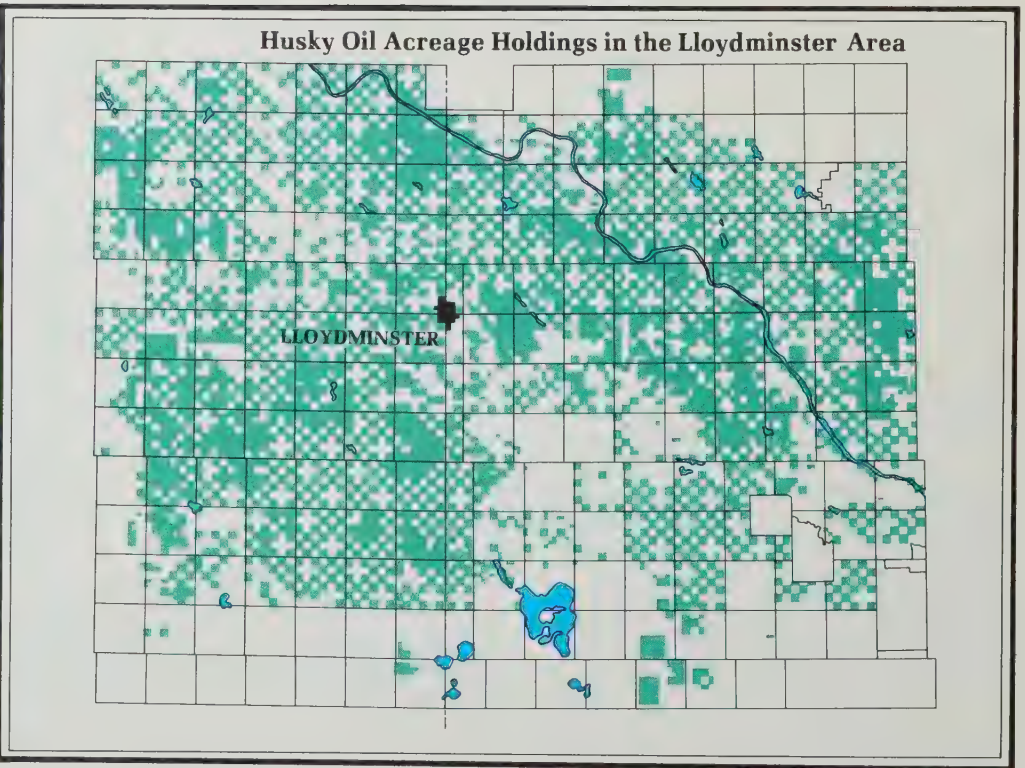
In addition to its heavy oil reserves, Husky has attractive conventional oil and gas reserves in Canada and the U.S. as well as some interesting off-shore prospects in the Philippines. Husky had a record year in 1978 and those results are reflected in the increased earnings of the Petroleum Division.

Algas Mineral Enterprises Ltd.

Algas Mineral Enterprises Ltd. (AMEL), a wholly owned subsidiary of the Company, is primarily engaged in the exploration and production of natural gas and oil in Alberta. This subsidiary's share of gross production before royalty during 1978 amounted to 207.9 10⁶ m³ (7,379 million cubic feet) of gas (including oil and natural gas equivalents) as compared to 164.9 10⁶ m³ (5,852 million cubic feet) in 1977. AMEL has proven gas reserves which will go on production when a market



AMEL gas drilling rig near Clive, Alberta.



outlet is found, this situation being similar to that of hundreds of other gas producers in Alberta.

Activity during 1978 is reflected in the following table showing the number of wells drilled during the past year:

WELLS	GAS		OIL		DRY		TOTAL	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Exploratory	22	10.13	5	2.03	26	14.95	53	27.11
Development	24	3.37	6	1.48	4	1.46	34	6.31
Total	46	13.5	11	3.51	30	16.41	87	33.42

In addition, AMEL participated in extensive seismic survey work during 1978 and also added 21 853 ha (54,000 acres) gross — 8903 ha (22,000 acres) net — to its existing land position to bring land holdings at year end to 445 155 ha (1.1 million acres) gross — 202 343 ha (0.5 million acres) net — located primarily in Alberta. Expenditures for petroleum and natural gas rights, seismic surveys, exploration and development drilling and surface facilities totalled \$10 million in 1978.

In 1978 AMEL issued approximately U.S. \$59 million of income debentures and used part of the proceeds to repay existing debt; the balance was allocated for 1978 and 1979 exploration and development expenditures.

This subsidiary, in conjunction with the Company, continues to conduct studies for a gas storage project in Alberta to achieve operational efficiencies within the gas transmission systems and provide additional deliverability to meet "peak-day" requirements.

It is possible that during 1979 a commitment to develop a gas storage project will be made. It is becoming quite apparent

that there is a demand for such a project in the near future, as additional flexibility in the gas transmission system in meeting all Canadian requirements is believed essential.

The Company's storage project has involved the identification of optimum locations in reservoirs with good producing and deliverability characteristics. The selected reservoir would be refilled with gas supplied by those companies and interests who desire a natural gas storage service. Additional wells would be required to maximize deliverability, together with added compression and other related facilities for tying in this supply to the main gas transmission system. It would be highly automated and represent a substantial addition to the pipeline gas inventory, and thus offer a much needed flexibility in meeting service requirements.

Pan-Alberta Gas Ltd.

Pan-Alberta Gas Ltd. (50.005% owned) was incorporated in 1972 to carry out a program for the competitive supply of natural gas to markets outside Alberta. Under this program, Pan-Alberta contracts for the purchase of natural gas from producers at field delivery points throughout Alberta and for the sale of such gas to purchasers outside Alberta.

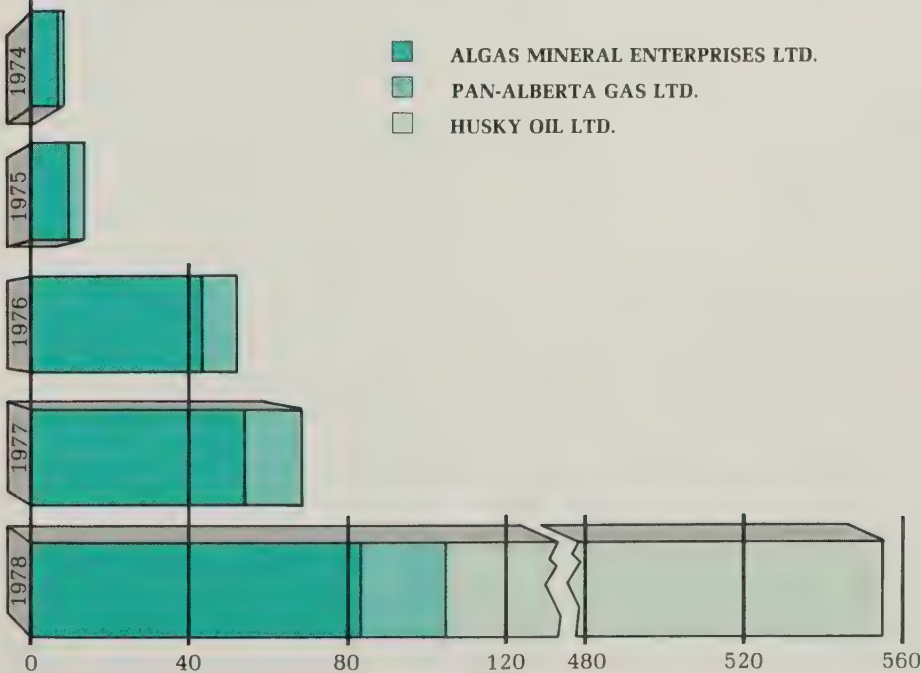
Pan-Alberta's main markets include sales to Gaz Metropolitain, inc. which serves the city of Montreal and to Westcoast Transmission Company Limited. The gas sold to Westcoast flows through the Westcoast system in British Columbia into the northwest United States. Other sales included local Alberta industrial accounts, Gas Alberta and the Saskatchewan Power Corporation. Total gas sales increased from 1.5 10⁹ m³ (53 billion cubic feet) in 1977 to 1.8 10⁹ m³ (63 billion cubic feet) in 1978.

Pan-Alberta has signed two short-term sales contracts with the Northwest Alaskan Pipeline Company, the operator of the consortium which will build the Alaskan segment of the pipeline. These contracts are for the delivery of over one billion cubic feet daily of Alberta natural gas, with 6.8 10⁶ m³/d (240 million cubic feet per day) to be delivered at Kingsgate, B.C., and 22.5 10⁶ m³/d (800 million cubic feet per day) to be delivered at Monchy, Saskatchewan.

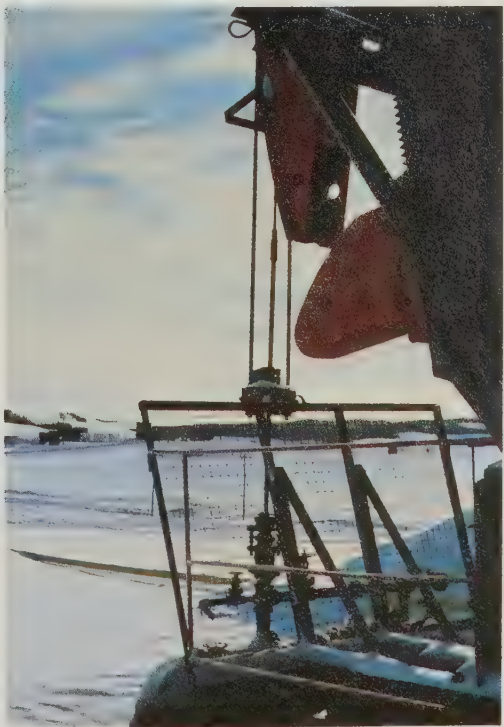
In addition to the proposed short-term export and the normal growth in current domestic markets, Pan-Alberta is working closely with Q & M Pipe Lines Ltd. on the supply of natural gas to eastern Quebec and the Maritimes.

Pan-Alberta intends to continue to work with Canadian natural gas producers in a positive manner in the development of new natural gas supplies and to continue aggressively to search out new markets for Canadian natural gas.

Petroleum Division Assets
(millions of dollars)



AGAT'S PERCENTAGE INTEREST IN THE GROSS ASSETS OF SUBSIDIARIES AND AFFILIATES



Husky heavy oil pumping unit and field storage facilities near Lloydminster, Alberta.

Manufacturing Division

Grove Valve and Regulator Company (100%)

WAGI International S.p.A. (66.7%)

Steel Alberta Ltd. (50%)

The Company's largest investment in the Manufacturing Division is represented by its 100% ownership of Grove Valve and Regulator Company and its 66.7% interest of WAGI International S.p.A. Also reported in this division is Steel Alberta Ltd. (50% owned). The Company's interest in Grove and WAGI is held in a wholly-owned U.S. subsidiary, Energy Equipment and Systems Inc. (EESI). Objectives common to both companies, such as engineering design and specification, are managed through the President and Board of Directors of EESI and the financial results of Grove and WAGI are consolidated in that company. The Company and EESI are presently studying the possibility of establishing a "Flow Control Systems" demonstration and experimental centre in Alberta. This study is very preliminary and no capital expenditures for it have been budgeted as yet for 1979.

Grove Valve and Regulator Company

Grove Valve and Regulator Company is headquartered in Oakland, California, and manufactures large diameter pipeline valves and regulators. Although Grove did show some profitability in 1978, it did not reach expectations. That company went through a year of rebuilding with major organization and personnel changes and it is hoped the reorganization will improve shipping and production schedules. Because of problems in these areas in prior years, Grove was left at the end of 1977 with a large high cost inventory, which affected 1978 results.

The outlook for 1979 appears better with smaller valves expected to show good volume and price trends. Markets are still depressed for large pipeline valves but are expected to pick up when some of the larger North American pipeline projects get underway.

WAGI International S.p.A.

WAGI operates four manufacturing plants and a foundry in various locations throughout Italy. It has had a successful year although lower than original expectations due to two main factors. Seventy per cent of WAGI's sales are in U.S. dollars and the weakening of that dollar in relation to the Italian lira has had some negative impact. Also WAGI experienced some shortfall in sales orders earlier in the year because of the political and economic uncertainty in Italy. The outlook for WAGI in 1979 is good. Pipeline construction activity remains high in the Middle East, North Africa and the Eastern Bloc countries, all of which are known markets for WAGI products.

Dividends received from WAGI during 1978 amounted to \$6 million. To date, a total of U.S. \$8.4 million has been received from that company.

Steel Alberta Ltd.

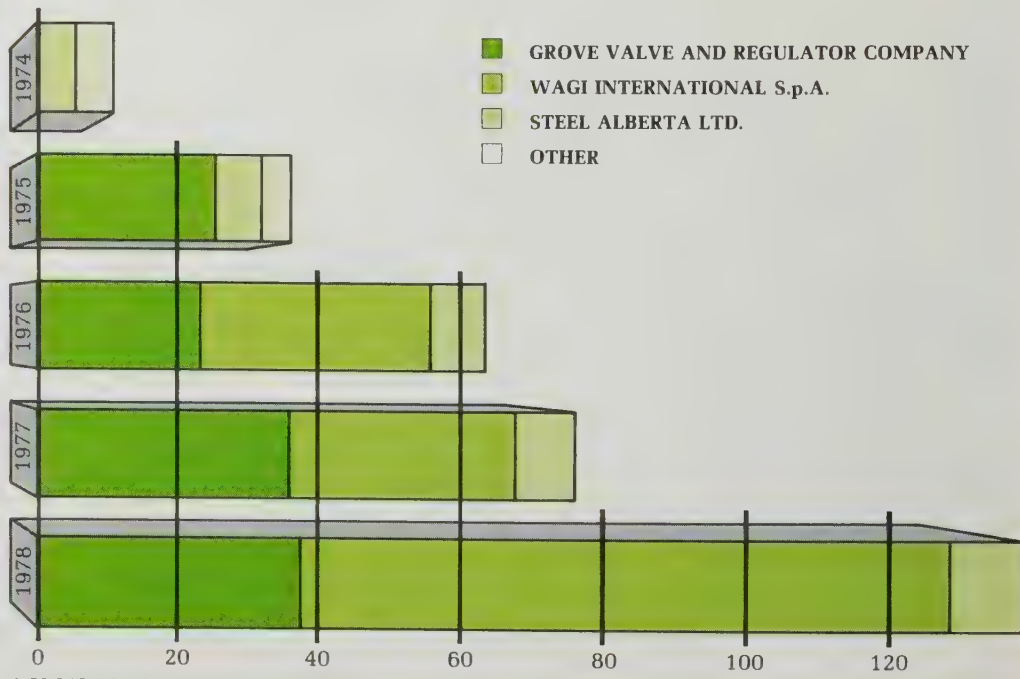
The Steel Alberta Ltd. affiliate which owns 20 % of the issued shares of Interprovincial Steel and Pipe Corporation Ltd. (IPSCO) of Regina continued with activities leading to its making investments in steelmaking facilities in Alberta and to securing and developing economic sources of iron units as raw material for the industry in western Canada. A lease was acquired on a large iron ore deposit in the Peace River area of Alberta and another lease was taken on the Carter Creek iron ore deposit in southwest Montana. While both leases can be mined by open pit methods and are well located to transportation facilities, the Montana lease is potentially the more immediate source of iron units as the Peace River deposits cannot yet be benefited by known technological processes. The Steel Alberta staff and consultants continued with market and manufacturing feasibility studies on a variety of projects.



Assembly of 1067 mm (42 inches) B5 ball valves, Voghera, Italy.

Manufacturing Division Assets

(millions of dollars)



AGTL'S PERCENTAGE INTEREST IN THE GROSS ASSETS OF SUBSIDIARIES AND AFFILIATES

Pipeline Development Division

Alaska
Project
Division

Foothills
Pipe Lines (Yukon)
Ltd. (50%)

Q & M Pipe Lines
Ltd.

Arctic Pilot Project

The Company has underway three pipeline development projects that it believes are sound, practical and desirable in the Canadian context. Taken together, they hold the promise of providing Canadian project management expertise, encouraging expanded development of our natural resources, unifying our country along new economic lines, and in general, providing better economic balance and increased national security for Canada.

The Alaska Highway Gas Pipeline Project

One of the most complex business ventures in which the Company is involved is the Alaska Highway Gas Pipeline Project. Foothills Pipe Lines (Yukon) Ltd., owned equally by the Company and Westcoast Transmission Company Limited, is responsible for construction and operation of the Canadian sections of this large international project.

The purpose of the project is initially to transport U.S. gas from Prudhoe Bay in Alaska to U.S. markets. The project also has provision for the future hook-up of northern Canadian gas to markets in southern Canada by way of a lateral from the Mackenzie Delta along the route of the Dempster Highway. Capital costs

for the Canadian section of the line are now projected to be Canadian \$5.8 billion, escalated to the year of construction (\$3.4 billion in 1978 dollars).

As stated in the Canada-U.S. Agreement of September 1977, the Governments of Canada and the United States wish "to advance the national economic and energy interests and to maximize related industrial benefits of each country" with this project.

Since the late 1960s, when the competitive process to build a northern pipeline began, the management and staff of the Company, Foothills and Westcoast Transmission have pursued their commitment to undertake a project of this magnitude with enthusiasm. That commitment is backed by the belief that the following statements are valid.

- There will be a deficiency of natural gas supply in the gas consuming markets of the U.S. in the early 1980s.
- The proven reserve and established gas producing capacity in the North Slope of Alaska is the largest unconnected domestic gas source in the United States.
- The engineering and environmental plans for the project are well developed and completely feasible. The economic feasibility has been basically assured by certain provisions contained in the United States' Energy Bill, passed in the fall of 1978.
- The Canadian pipeline construction contractors have wide experience and capacity to execute

this project in Canada. The corresponding capacity exists within United States industry.

- The most practical time estimate for the service indicates that the Alaska gas should be available to consumers in the 1984/85 heating season, which is about 22 months later than originally scheduled.
- The pre-build option if authorized would afford the most economic system for moving any substantial quantities of surplus Alberta gas to market.

During the past year the Foothills companies have been working aggressively to carry through their responsibilities. About 300 persons are engaged directly as Foothills employees and constitute by a considerable measure the strongest pipeline project management group ever assembled in Canada.

As at December 31, 1978, the Company has booked deferred charges in the amount of \$42 million in relation to this project.

The current risk exposure debate is continuing because of administrative delays which have arisen within the United States in respect of the project's expedition, not because of physical situations about the project nor because of any basic uncertainty about the availability of capital for its financing. Meanwhile, the Foothills companies and their counterpart United States franchised transmission companies are putting many millions of dollars per month into the project in the faith that it is required and will proceed expeditiously according to the agreement entered into between the Governments of the U.S. and Canada.



Docking facilities, Prudhoe Bay.



Alaska Highway and telephone line right-of-way north of Whitehorse.

Many specific developments relating to the progress of the Alaska gas pipeline occurred in 1978.

- On April 12, 1978, Royal Assent was given to Bill C-25, an act which created a Northern Pipeline Agency and gave approval for the construction of the Canadian sections of the Alaska Highway Gas Pipeline Project.
- On September 27, 1978, the U.S. Senate approved President Carter's energy bill and House of Representatives approval followed on October 14. With that bill now law in the U.S., the last legislative hurdle for the Alaska Highway Pipeline Project has been cleared. The bill provides, among other things, for the pricing of Alaska gas at the wellhead and allows such gas to be priced on a "rolled-in" basis with all other domestic gas production in the United States. Foothills Pipe Lines (Yukon) Ltd. and its associate companies will follow with interest the negotiations for purchase and sale of the Alaska gas, between the North Slope producers and gas utility companies in the lower 48 states. Following on those contracts, Foothills and its U.S. partner, Northwest Alaskan Pipeline Company, will be negotiating the transportation contracts which will be used as a basis for the financing of the line.
- On December 19, 1978, Foothills announced that it would enter into negotiations with the Steel Company of Canada Limited and Interprovincial Steel and Pipe Corporation Ltd. for supply of the 1.4 Mt

(1.5 million tons) of line pipe required for the Canadian portions of the Project and the 317 510 t (350,000 tons) required for the Dempster Lateral. Evaluation of bids received by Foothills on October 2, 1978, showed the Canadian suppliers to be competitive on an international basis.

- Employees of Foothills Pipe Lines (South Yukon) Ltd. (the project management organization for the Yukon section of the line) have recently conducted community information sessions in several Yukon centres. These meetings are part of Foothills' ongoing Community Relations Program, designed to provide residents along the pipeline route with the most up-to-date information available on project developments in their specific area.
- The manpower plan for construction of the pre-build portion of the Alaska Highway Gas Pipeline Project is being prepared for submission to the Northern Pipeline Agency. The plan will outline a method for ensuring maximum possible use of Canadian labour in the planning, construction and operation of that portion of the pipeline. In addition, the plan will detail the many different types and numbers of workers that will be required at various times and locations, identify possible shortages of skill groups, propose training programs to fill such shortages and outline methods for promoting the employment of minority groups living near the pipeline route.
- On the engineering side, Foothills is currently constructing a full-scale

burst test facility in the Rainbow Lake area of Northern Alberta. This installation will provide Canada with an internationally important research facility and represents one example of Foothills' commitment of long-term national benefit from the building of the Alaska Highway Pipeline.

- Foothills is proceeding with the filing of the application to build the Dempster pipeline to carry gas from the Mackenzie Delta to southern Canada. The application is required to be submitted to the National Energy Board by July 1, 1979.

The Foothills team will continue to pursue its commitment to what it considers to be a vital international energy project.

Alaska Project Division (AGTL)
During 1978 the Company established a new operating division which will be responsible for the project management, design and construction of the Alberta section of the Alaska Highway Pipeline Project. To this end, the Alaska Project Division will act as agents for Foothills Pipe Lines (Alta.) Ltd., an affiliate company and owner of the Alberta section. The Division will provide a complete range of project management services, utilizing a consolidation of management, technical and administrative expertise developed by the Company over the years and augmented by the addition of personnel with a range of specialized skills recruited from across Canada. By year end a professional and support staff of 70 people were working on the Alberta section of the project within the engineering, construction and administration groups of the Division.

Alaska Highway Gas Pipeline Companies

		Pipeline Length and Diameter	
		km - mm	mi. - in.
	Northwest Alaskan Pipeline Company	1176km -1219mm	731 - 48"
	Foothills Pipe Lines (North Yukon) Ltd. 100% Foothills (Yukon) Dempster Lateral	1191km - 864mm	740 - 34"
	Foothills Pipe Lines (South Yukon) Ltd. 100% Foothills (Yukon)	428km - 1219mm 404km - 1422mm	266 - 48" 251 - 56"
	Foothills Pipe Lines (North B.C.) Ltd. 51% Foothills (Yukon) - 49% Westcoast Transmission Company Limited	707km - 1422mm	439 - 56"
	Foothills Pipe Lines (Alta.) Ltd. 51% Foothills (Yukon) - 49% Alberta Gas Trunk Line	636km - 1422mm 378km - 1067mm 283km - 914mm	395 - 56" 235 - 42" 176 - 36"
	Foothills Pipe Lines (Sask.) Ltd. 100% Foothills (Yukon)	258km - 1067mm	160 - 42"
	Foothills Pipe Lines (South B.C.) Ltd. 51% Foothills (Yukon) - 49% Alberta Natural Gas Company Ltd.	169km - 914mm	105 - 36"
	Northern Border Pipeline Co. Pacific Gas and Electric Co. Pacific Gas Transmission Co.	188km - 1067mm 1466km - 914mm	117 - 42" 911 - 36"

The Division's principal focus in 1978 was directed toward the task of preparing for pre-building a large portion of the Alberta section of the overall project, to facilitate short-term export of surplus western Canadian natural gas.

Final engineering design and pre-construction planning are scheduled for 1979. The Division hopes to finalize detailed engineering drawings and specifications, establish its field construction forces, acquire right-of-way for the pre-build legs of the project and seek the necessary pre-construction approvals. Procurement of materials and construction services is expected to proceed into the contractual stage with suppliers and contractors late in the year to facilitate an actual field start of pipeline construction in 1980.

Foothills Oil Pipe Line Ltd.

In late 1978 the above company announced the filing of an application to build a pipeline to transport Alaskan oil through Canada to the mid-western U.S. by way of Skagway, Alaska, and interconnection with existing oil pipelines in Alberta.

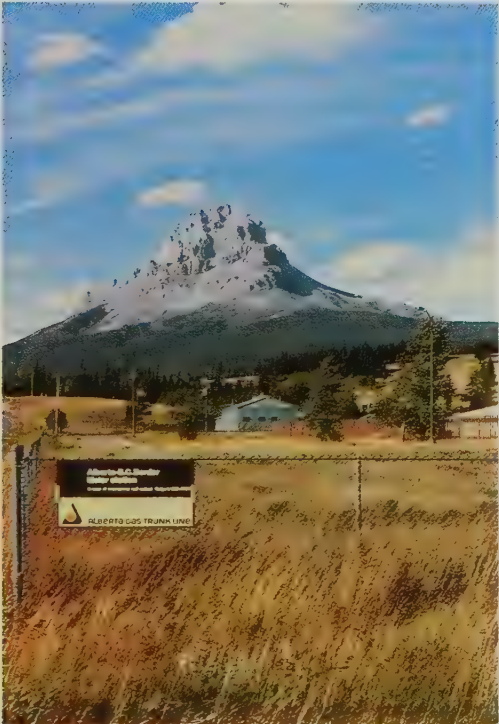
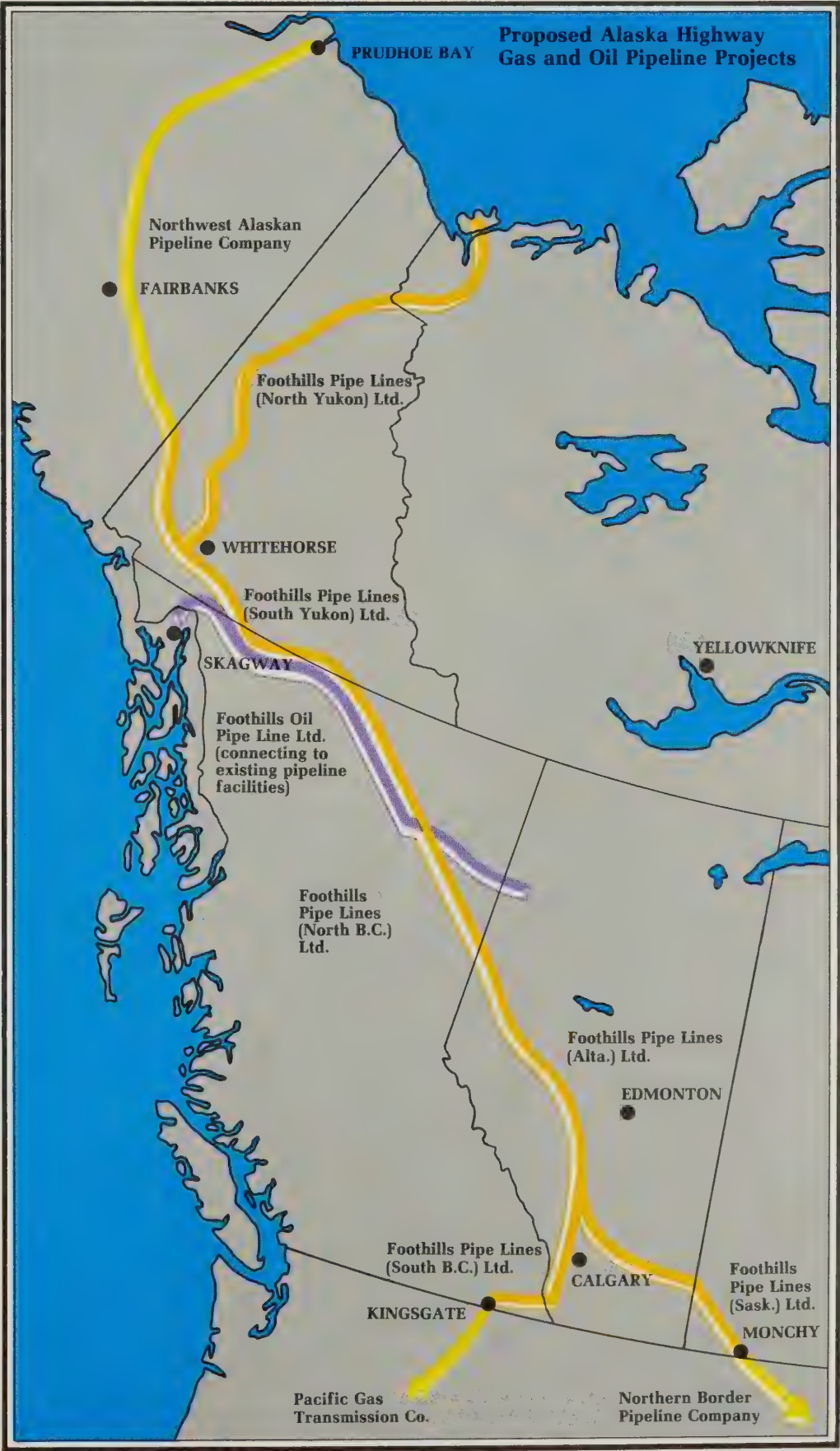
An application was filed with the United States Secretary of the Interior by the U.S. associate in this venture, Northwest Energy Company of Salt Lake City, with supporting material from Foothills. A companion application for the Canadian portion of the project will be filed this year with the National Energy Board.

Foothills Oil Pipe Line Ltd. is owned equally by the Company and Westcoast Transmission Company Limited.

The approximately one billion dollar 864 mm (34-inch) oil pipeline would follow the approved natural gas pipeline route

within the energy corridor along the Alaska Highway. Thus, facilities established to build the gas pipeline, such as roads, housing, communications, construction campsites and supply centres, could also be used to construct the oil pipeline.

The oil line will in no way interfere with construction of the gas pipeline, the priority responsibility of the Foothills group of companies.



Near the Alberta - B.C. border where the Alaska Highway Gas Pipeline will cross.

Q & M Pipe Lines Ltd.

A proposal to extend natural gas service to eastern Quebec and the Maritimes is currently before the National Energy Board, with hearings expected to be held in early May.

The project is led by Q & M Pipe Lines Ltd., a subsidiary of the Company. Petro-Canada provided funding support and assistance in the initial study phases and retains the right in future to acquire up to 20% of Q & M.

The Q & M plan is to construct and operate a pipeline system for the transmission of Alberta natural gas to eastern Quebec, New Brunswick and Nova Scotia markets. About 3058 km (1900 miles) of pipeline, serving approximately 130 communities, are planned at a projected cost of \$950 million. Capital costs of associated distribution systems are estimated at \$1.25 billion.

In the opinion of the Company, this pipeline will benefit many regions of Canada. It will contribute a major new

economic tie across Canada by completing a natural gas transportation corridor which until now has had its terminus at Montreal. Thirty-four per cent of Canada's population is concentrated in Quebec, Nova Scotia and New Brunswick, and only a small number of these Canadians have access to natural gas service at present. The Q & M proposal appears to be highly supportive to Canadian government policy of achieving national energy self-reliance. Eastern Canadians would be provided with a domestic energy source that is under Canadian control as to supply and cost. The project encourages increased development of natural gas reserves in Alberta, the Arctic and offshore regions, and elsewhere in Canada by opening up a major new domestic market.

Gas volumes delivered through this line to major population centres in eastern Canada are expected to increase from an initial 8.5 10⁶ m³/d (300 million cubic feet per day) in 1980 to more than 28.2 10⁶ m³/d (one billion cubic feet per day) in 1991. Initial supply, to be provided by Pan-Alberta Gas Ltd., will come from Alberta. Potential future sources of supply include Arctic Islands LNG and new gas reserves that may be developed in the western Arctic and east coast offshore.

Present project plans call for construction to commence in the summer of 1980, with completion planned for November 1982. Service to Quebec North Shore centres would begin by November 1980, and mainline facilities to Halifax would be in operation by November 1981. It is estimated that the effect attributable to the project on the aggregate income of the three provinces would be in excess of \$6 billion (1978 dollars) over the period from 1978 to 2000.

The cost of delivering gas to consumers in eastern Canada will be high in the early years, but the project is expected to be a fully viable commercial venture after the first ten years of operation. Governments and producers have indicated some willingness to share in absorbing additional costs so that consumers could initially be charged less than they would be paying for alternate energy sources. Such a policy would promote good market penetration.

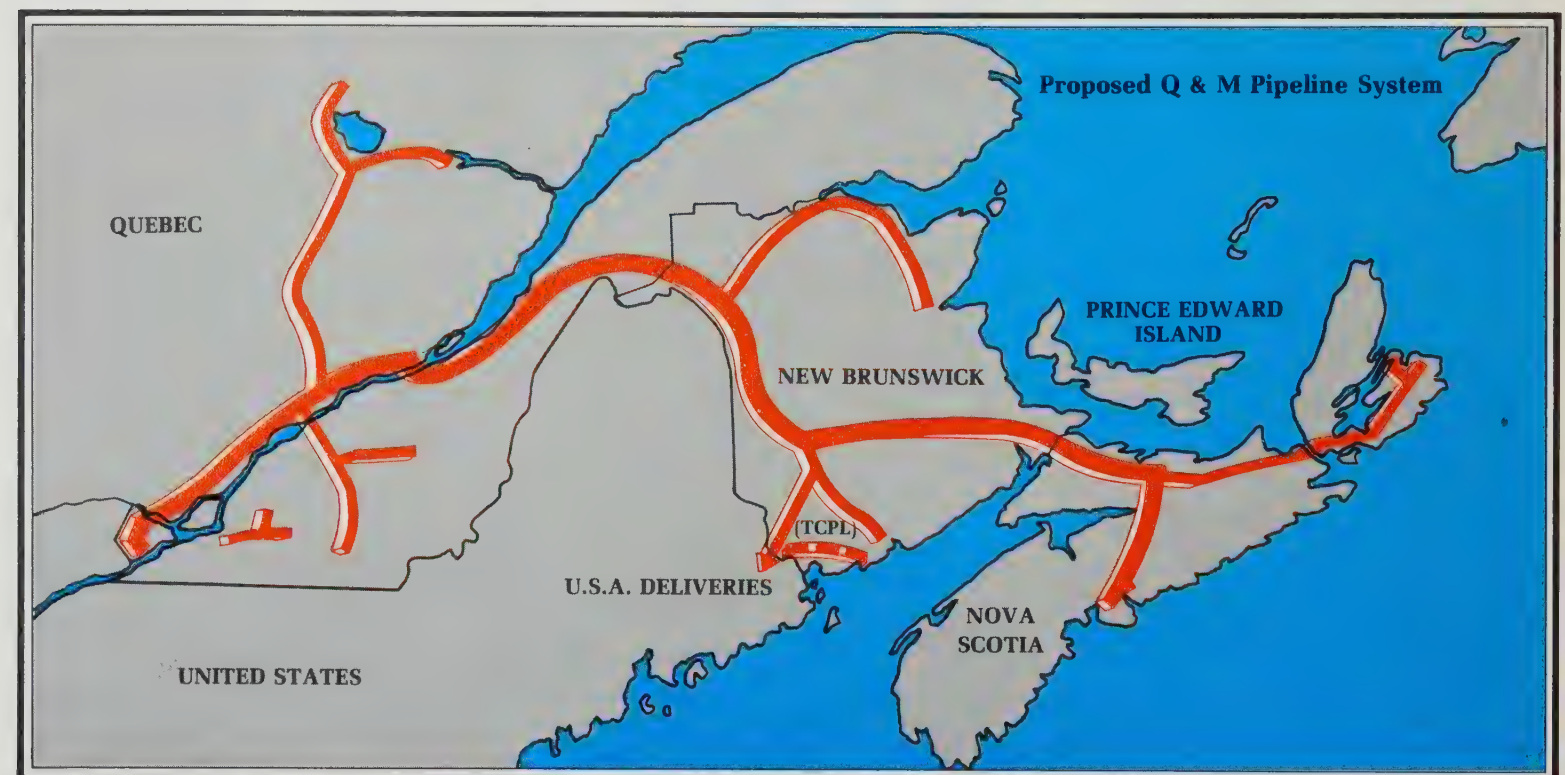
Extensive social, economic, environmental and engineering analyses have now been completed and the Q & M application was filed with the National Energy Board on October 20, 1978. By the time a decision is reached, the Company expects to have spent \$5.5 million in project development.

Arctic Pilot Project

Development of the Arctic Pilot Project, a joint venture of Petro-Canada, the Company and Melville Shipping Ltd., continued throughout 1978, and applications to proceed have been filed with regulatory agencies.

The project proposes to deliver 7.04 10⁶ m³/d (250 million cubic feet per day) of natural gas in liquefied form by ship from Melville Island in the high Arctic to North American east coast markets. After two years of participation in this project, the Company has spent a total of \$10.5 million.

Although a pilot project, the operation will be commercially viable over its 20-year life. At the same time, it will demonstrate the feasibility of bringing arctic gas to market, a development that will add 366.3 10⁹ m³ (13 trillion cubic feet) of natural gas, already discovered but as yet undeliverable, to Canada's



reserves. Having this energy source available will stimulate development of gas distribution systems in eastern Canada, reducing dependence on imported fuels, contributing a secure supply source, and improving our country's balance of payments. Other benefits also will accrue to Canada in the form of jobs, business opportunities for northern residents, technology and expertise in arctic shipping, ice-breaking, engineering and construction. The project should also heighten exploration activity in the high Arctic.

At a preliminary estimated cost of \$1.5 billion, the project calls for eight onshore natural gas wells to be drilled at Drake Point, on the northeast shore of Melville Island's Sabine Peninsula. The Drake Point field, one of the largest in Canada, can readily provide the $53.5 \times 10^9 \text{ m}^3$ (1.9 trillion cubic feet) of gas to be removed over the project's life. While project production will come from onshore sites only, an offshore well completion in the adjacent coastal area during 1978 proved conclusively that gas can be produced, gathered and delivered from offshore facilities.

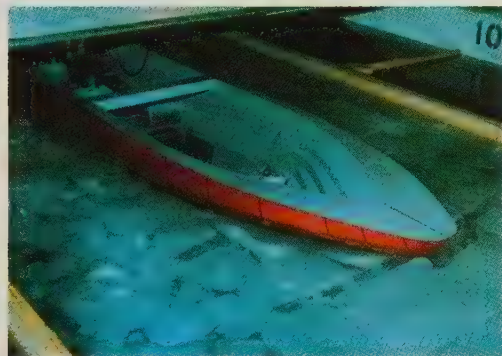
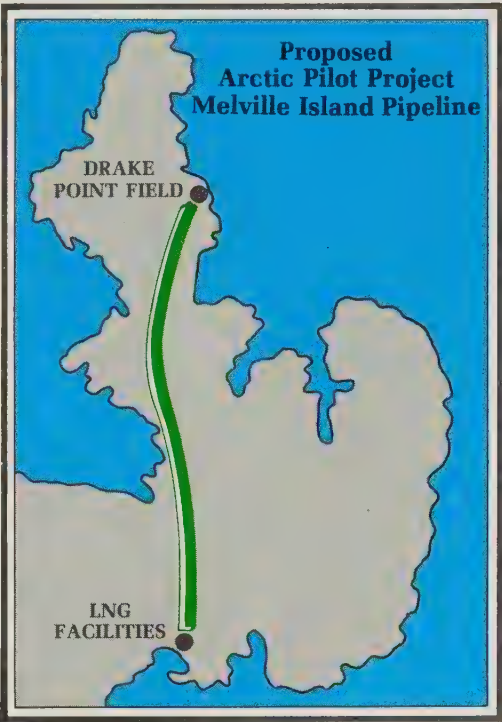
Gas will be gathered in the field and fed to a central dew point control facility. From there, it will be transported 160 km (99 miles) via a 559 mm (22 inches) pipeline to Bridport Inlet, a natural harbour on the island's southern coast. This pipeline component of the project would be constructed and operated by the Company.

At Bridport, the gas will be received by a liquefaction plant, processed and stored in a $200 \times 10^3 \text{ m}^3$ (7.1 million cubic feet) facility. Both the plant and the storage facilities will be mounted on barges, a

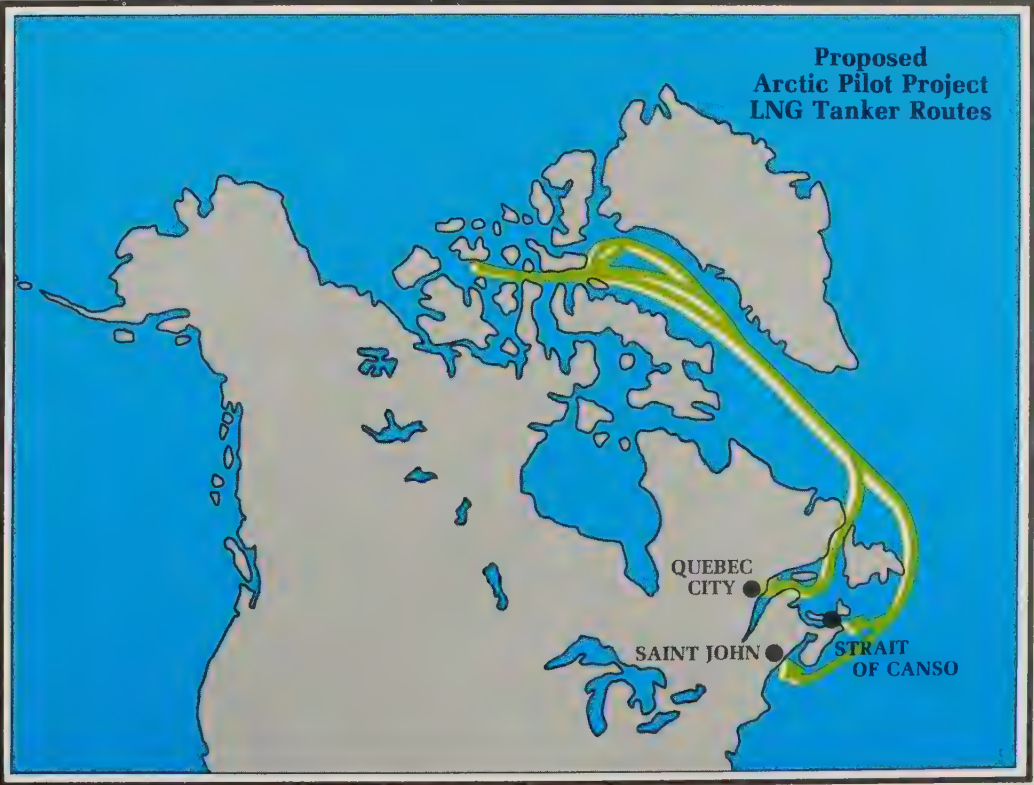
technique that should result in lower construction costs and limited effect on the environment.

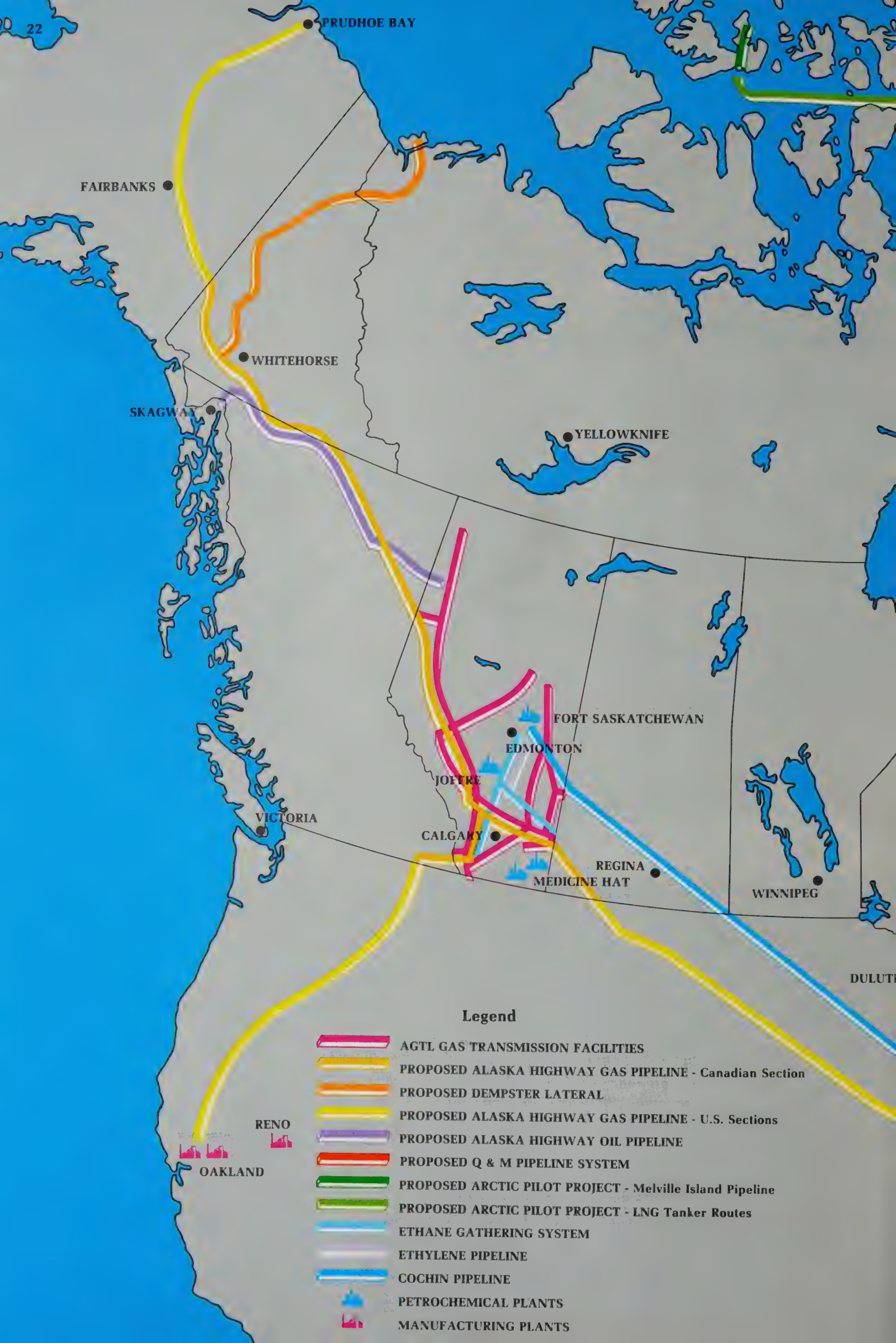
Transportation south will be via two 335 m (1,099 feet) liquefied natural gas (LNG) tankers, each exceeding the requirements of Arctic Class 7 ice-breakers and designed to carry $140 \times 10^3 \text{ m}^3$ (4.9 million cubic feet) of LNG. Year-round operation of these ships will be the world's first, and their carefully researched, precise construction will ensure that the operation is practical and safe. Three possible locations in eastern Canada for a regasification plant are under study.

Permission to export the gas has been requested from the National Energy Board, and related applications have been filed with the Department of Transport and the Department of Indian Affairs and Northern Development. The project would take four years after approval to construct.



Ice-breaker tanker, model studies in simulated rafted ice.





FAIRBANKS

PRUDHOE BAY

WHITEHORSE

SKAGWAY

YELLOWKNIFE

FORT SASKATCHEWAN

EDMONTON

JOFFRE

VICTORIA

CALGARY

REGINA

MEDICINE HAT

WINNIPEG

DULUTH

RENO

OAKLAND

Legend



AGTL GAS TRANSMISSION FACILITIES



PROPOSED ALASKA HIGHWAY GAS PIPELINE - Canadian Section



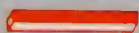
PROPOSED DEMPSTER LATERAL



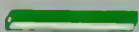
PROPOSED ALASKA HIGHWAY GAS PIPELINE - U.S. Sections



PROPOSED ALASKA HIGHWAY OIL PIPELINE



PROPOSED Q & M PIPELINE SYSTEM



PROPOSED ARCTIC PILOT PROJECT - Melville Island Pipeline



PROPOSED ARCTIC PILOT PROJECT - LNG Tanker Routes



ETHANE GATHERING SYSTEM



ETHYLENE PIPELINE



COCHIN PIPELINE



PETROCHEMICAL PLANTS

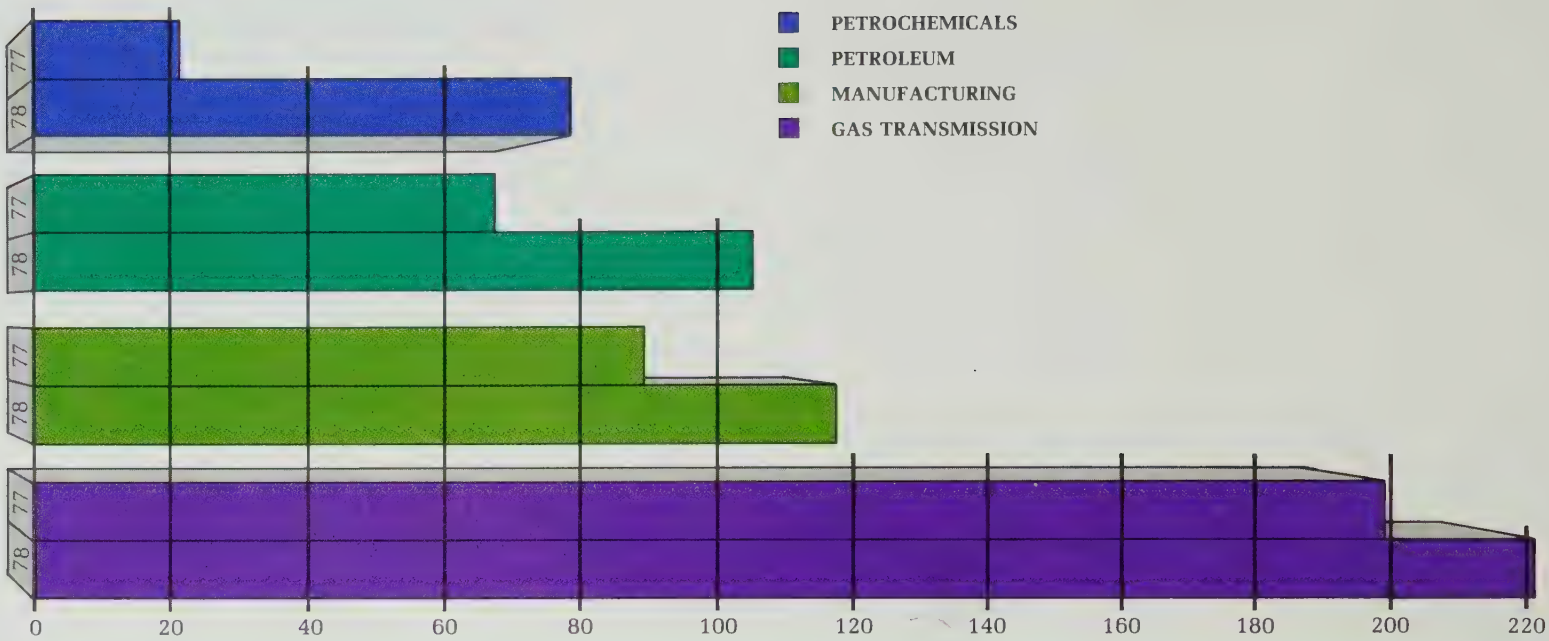


MANUFACTURING PLANTS

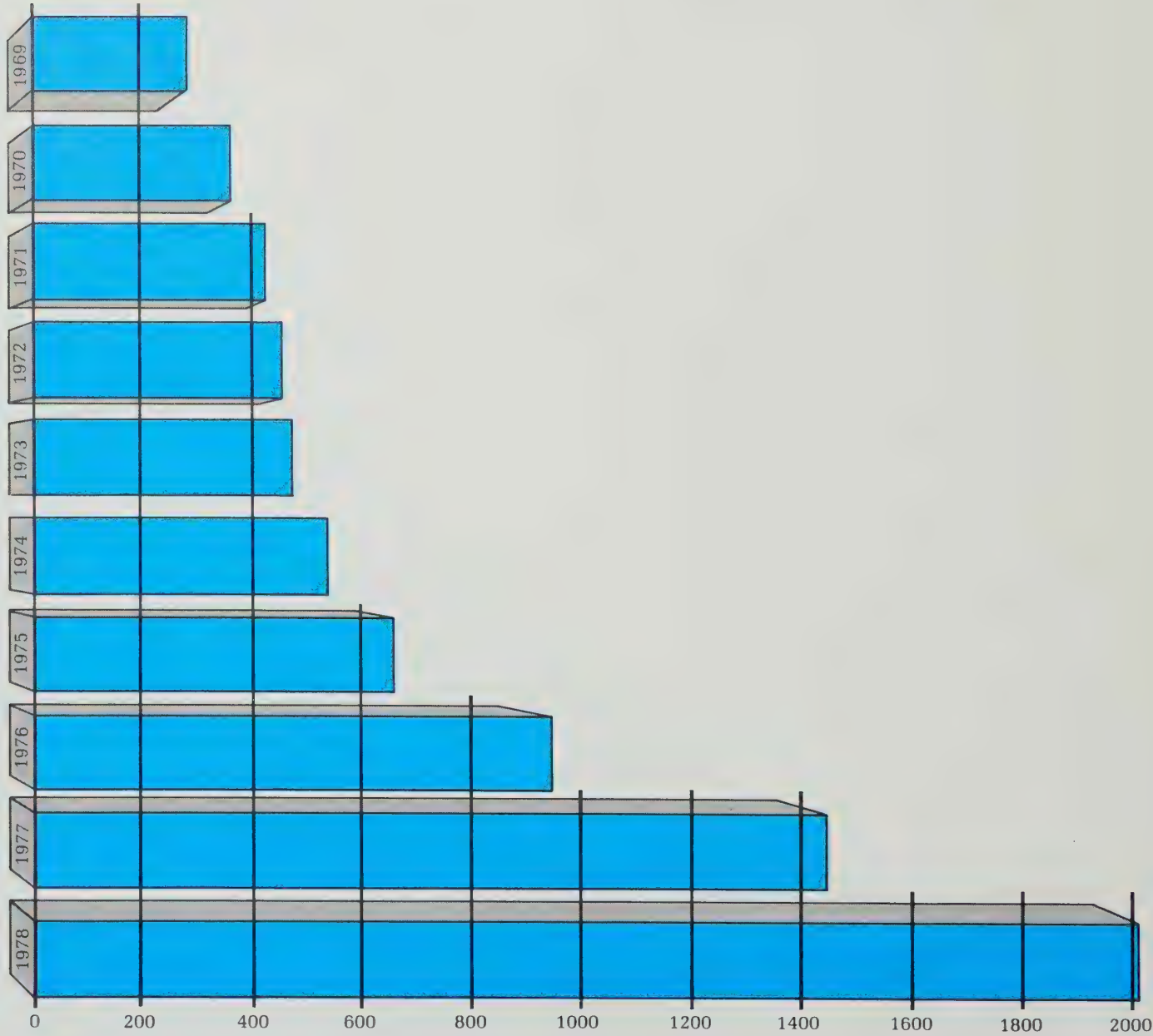


Financial Review

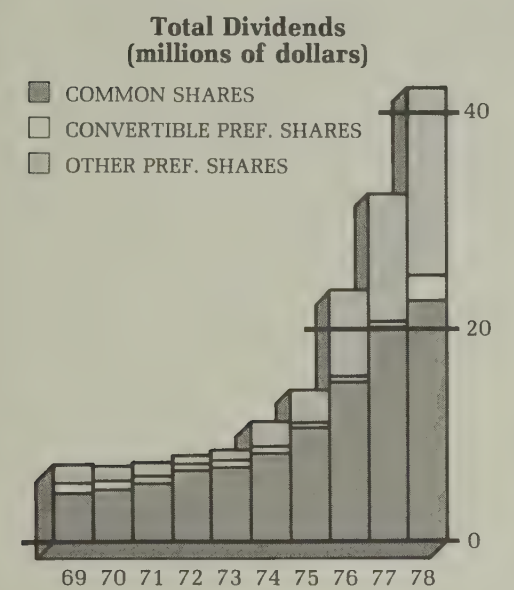
Gross Revenues by Division
(millions of dollars)



Total Consolidated Assets
(millions of dollars)



Financial Review



Significant growth in revenues, net income and assets highlight the financial results of 1978.

Revenues

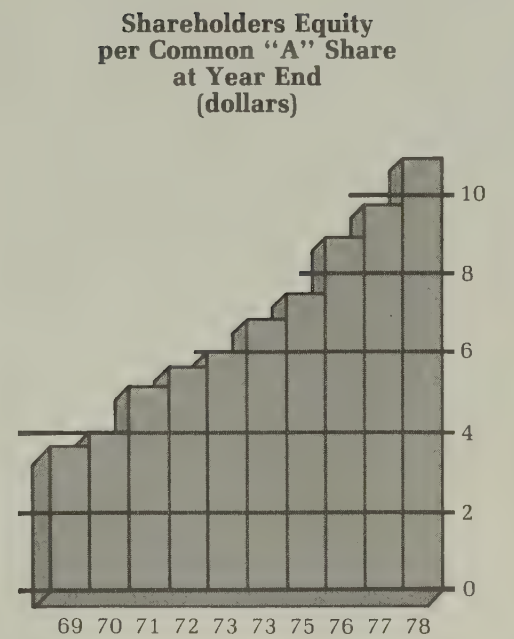
Total consolidated revenues of \$505 million increased \$139 million or 38% over 1977 revenues of \$366 million. Non-operating revenue increased by \$23.7 million or 139% from \$17 million to \$40.7 million principally due to the equity in earnings of Husky Oil Ltd. for the last six months of the year and increased allowance for funds used during construction on petrochemical facilities constructed during the year. Operating revenues from all divisions totalled \$464.1 million, an increase of \$115.3 million or 33% over the 1977 level of \$348.8 million. On a divisional basis, the petrochemical and petroleum divisions account for \$95.2 million or 68% of the increase in total revenues of \$139 million. Diversified activities now account for 56% of total revenue as opposed to 45% in 1977.

Costs

Total costs and expenses of \$330.8 million increased by \$105.5 million or 47% from \$225.3 million in 1977. This was due primarily to an increase in cost of sales and operating expenses of \$98 million or 44%. Two divisions, manufacturing (\$31.6 million) and petrochemicals (\$40.7 million), accounted for the bulk of that increase. Provision for depreciation and depletion increased \$7.5 million or 19% from \$38.6 million to \$46.1 million. This reflects chiefly the increase of \$108.2 million in cost of gas transmission plant in service for 1978.

Operating Income

Net operating income of \$174 million shows an increase of \$33.5 million or 24% over the \$140.5 million achieved in 1977. The gas transmission division accounted for \$13.6 million or 41% of this increase and all other divisions contributed \$19.9 million or 59% of the increase. The biggest gains in the latter category came from the petrochemical



and petroleum divisions. Net operating income components now indicate a contribution from diversified activities of 32% as opposed to 25% in 1977.

Interest

Interest expense (net of interest income) of \$41.1 million increased by \$13 million or 47% over the comparable figure of \$28.1 million in 1977. This reflects interest expense of \$4.9 million in respect of funds borrowed for the purpose of acquiring Husky shares during the year prior to the long term financing arrangements which took effect in November. The balance of the increased cost of \$7.5 million is principally higher net interest expense for petrochemical activities.

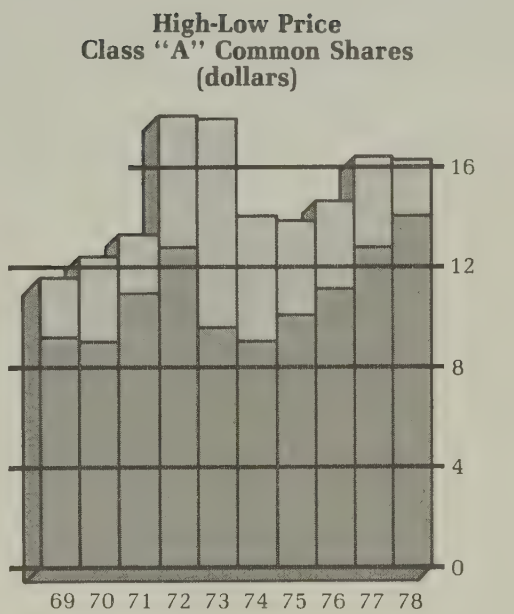
Foreign Currency

The gain on foreign currency translation of \$6.2 million is up \$4 million or almost triple the previous year's figure of \$2.2 million. After allowing for income taxes and minority interest the net contribution to net income from this source is \$4.3 million (15¢ a share) compared to \$1.4 million (5¢ a share) in 1977.

Income Tax

Income, before income taxes and minority interest, of \$139 million is up \$24.4 million or 21% over 1977 income of \$114.6 million.

Total income taxes for 1978 represent 34.3% of income before income taxes and minority interest as compared to 43.1% for 1977 and accordingly such income taxes at \$47.7 million are down \$1.7 million from \$49.4 million in 1977. Principal reasons for this reduction in the effective rate are the increase in income from equity share in earnings of affiliated companies, and the increase in income from certain petrochemical activities. In the former case, the equity interest is in the earnings (after tax) of the affiliated company and no further tax burden is incurred. In the latter case, the majority of the petrochemical activities



of the Company are on a cost of service basis and accordingly, income taxes will be reflected in the income statement only as they are billed to the customer in accordance with existing cost of service contracts.

Minority Interest

Minority interest of \$5.7 million is down \$2 million or 26% from \$7.7 million in 1977. This change reflects a reduction during the year of 13.4% in the minority interest in WAGI International, the new minority interest in A.G. Investments of dividends on cumulative redeemable preferred shares and a change in the level of income from manufacturing operations.

Net Income

Net income of \$85.6 million for the year increased by \$28.1 million or 49%. After providing for dividends of \$20.1 million on all preferred shares outstanding the basic earnings per common share for the year were \$2.31, an increase of 67¢ per share or 41% over the \$1.64 recorded in 1977. The average number of common shares outstanding during the year was 28.4 million, an increase of 1 million over the average outstanding in 1977 of 27.4 million. On a fully diluted basis, earnings per common share were \$2.14, an increase of 56¢ or 35% over the 1977 figure of \$1.58.

Assets

Consolidated assets of the Company increased from \$1.4 billion at December 31, 1977 to almost \$2.1 billion at December 31, 1978. This growth of \$618 million or 43% reflects the Company's increased investment in the petroleum industry, through Husky Oil Ltd. and the continued asset growth in petrochemicals, gas transmission, manufacturing and pipeline projects. Consolidated assets doubled in the eighteen month period from June 30, 1977 to December 31, 1978 as the impact of diversification plans, begun in 1974, becomes more apparent. At December 31, 1978, non-gas

transmission activities accounted for more than 50% of consolidated assets.

Husky Acquisition

At December 31, 1978, the Company held 5.3 million shares or 48% of the issued common shares of Husky Oil Ltd. which were acquired for \$255 million at an average cost of \$48 a share. The appropriate share of the earnings of Husky for the last six months of the year, in the amount of \$10.7 million, is included in the operating income of the Petroleum Division, after deducting a provision for amortization of the purchase discrepancy. The amortization of the purchase discrepancy (excess of average cost of Husky shares over net book value of Husky shares) is charged over a period of time. The rate of amortization relates principally to Husky's experience each year in exploration and development costs, the amount of oil and gas reserves, and production of oil and gas. In 1978, the annual rate of amortization of the purchase discrepancy charged against the equity in earnings of Husky was approximately 9%. Another cost factor, shown as a minority interest, is the financing cost experienced by a wholly-owned subsidiary which pays financing costs in the form of dividends on cumulative redeemable preferred shares held by two chartered banks.

Regulatory Matters

Over the last six months, a series of orders, interim orders and clarification orders were issued by the Public Utilities Board of Alberta in respect of the rate of return and the method used by the Company in charging depreciation and income taxes for its gas transmission division. The 1978 earnings of this division reflect a rate of return on rate base of 10.55% for the year (10.375% for 11 months and 10.75% for 1 month in 1977) and no change from 1977 in the method of calculating depreciation and income taxes.

The Public Utilities Board had ordered the Company for 1978 to revert to the

rates and methods of calculating depreciation in effect prior to November 1, 1975 (an approximate composite rate of 3.7%) and to collect income taxes on a flow-through basis. The Company has obtained leave to appeal this decision of the Board and also obtained a suspension of the order. In the event that the Company is ultimately required to adopt the rates and method of calculating depreciation ordered by the P.U.B. and to collect income taxes on a flow-through basis for the 1978 year, there would be no material impact on reported earnings for 1978, but a possible reduction in cash flow from operations of up to \$20 million.

In 1979 the Company is calculating depreciation on the rates and method in effect prior to November 1, 1975, but is continuing to collect income taxes on the normalized basis. A complaint was filed in 1979 on this treatment of income taxes and the P.U.B., by issue of an interim order, required the Company to collect taxes in 1979 on a flow-through basis. The Company has been granted leave to appeal that order and also obtained a suspension of that order.

Dividends

Dividends paid or payable for 1978 totalled \$44.3 million, an increase of \$10.8 million or 32% over the \$33.5 million for 1977. Common share dividends were \$22.8 million (\$20.2 million in 1977); convertible preferred share dividends were \$4.2 million (\$0.1 million in 1977) and preferred share dividends were \$17.3 million (\$13.2 million in 1977). The quarterly dividend on common shares was increased with the August dividend by 12% resulting in an increase for the year of 6%.

New Funds

In 1978 a total of \$721 million of new funds was obtained by the Company. Cash flow from operations generated \$126 million (\$109 million in 1977). A public issue of 6-3/8% Cumulative Redeemable Convertible Second Preferred Shares in October amounted to \$189

million. Other funds amounting to \$406 million were derived from financing arrangements of subsidiaries of which the principal item, \$205 million, came from the issue of cumulative redeemable preferred shares of A.G. Investments Ltd. to two chartered banks. The proceeds of this issue were used to finance the cost of Husky shares.

Capital Expenditures

Cash capital expenditures for capital assets and deferred charges in 1978 totalled \$259 million, compared to \$250 million in 1977. The major components were petrochemical plant and related pipelines - \$143 million, compared to \$117 million in 1977; gas transmission facilities - \$64 million, compared to \$98 million in 1977; and \$23 million for pipeline development projects compared to \$14 million for 1977.

Share Capital

Class "A" common shares outstanding at December 31, 1978 totalled 29.1 million compared to 27.8 million a year previous. The increase in the number of Class "A" common shares occurred primarily from the conversion of Series 1 Debentures. These shares are owned by 31,798 shareholders of whom 15,707 or 49.6% were registered in Alberta.

At December 31, 1978, the October new issue of 6-3/8% Cumulative Redeemable Convertible Second Preferred Shares in the amount of 7,560,000 shares was held by 12,288 shareholders of whom 2,458 or 20% are registered in Alberta. This issue had wide distribution among non-institutional holders and broadened the Company's shareholder base considerably.



CONSOLIDATED STATEMENT OF INCOME
(thousands of dollars except per share data)

Year Ended December 31

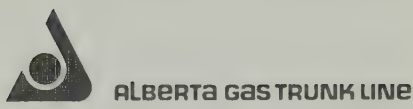
	Total		Gas Transmission		Manufacturing		Petroleum		Petrochemicals	
	1978	1977	1978	1977	1978	1977	1978	1977	1978	1977
Revenue:										
Operating (Note 1)	\$464,131	\$348,779	\$198,931	\$182,270	\$116,208	\$88,751	\$ 94,473	\$67,664	\$54,519	\$10,094
Intersegment revenue	—	—	20,967	12,025	—	—	—	—	—	—
Other revenue —										
Allowance for funds used during construction	23,777	13,831	3,643	4,985	—	—	—	—	20,134	8,846
Equity in earnings of affiliated companies	16,924	3,184	—	—	1,847	754	10,741	—	4,336	2,430
	504,832	365,794	223,541	199,280	118,055	89,505	105,214	67,664	78,989	21,370
Costs and expenses:										
Costs of sales and operating expenses	284,772	186,725	67,000	61,024	99,891	68,302	67,382	47,617	50,499	9,782
Intersegment expenses	—	—	—	—	—	—	20,967	12,025	—	—
Depreciation and depletion (Note 1)	46,073	38,599	38,312	33,594	4,444	3,194	2,398	1,811	919	—
	330,845	225,324	105,312	94,618	104,335	71,496	90,747	61,453	51,418	9,782
	173,987	140,470	\$118,229	\$104,662	\$ 13,720	\$18,009	\$ 14,467	\$ 6,211	\$27,571	\$11,588
Net operating income before the undernoted items										
	41,113	28,055								
Interest and expense on long term debt										
(Net of interest income: 1978 - \$23,353;										
1977 - \$10,686)	[6,168]	[2,184]								
Gain on foreign currency translation	34,945	25,871								
	139,042	114,599								
Income before income taxes and minority interest										
Income taxes (Notes 1 and 7):										
Current	18,542	26,708								
Deferred	29,126	22,664								
	47,668	49,372								
Income before minority interest	91,374	65,227								
Minority interest	5,743	7,756								
Net income (Notes 1 and 7)	\$ 85,631	\$ 57,471								
Earnings per common share:										
Basic	\$ 2.31	\$ 1.64								
Fully diluted	\$ 2.14	\$ 1.58								

Assets

See accompanying summary of accounting policies and notes

Liabilities and Shareholders' Equity

	December 31	
	1978	1977
Current Liabilities:		
Bank loans	\$ 68,234	\$ 4,559
Accounts payable and accrued liabilities	99,710	73,960
Income taxes payable	1,118	21,616
Dividends payable	14,392	9,157
Interest accrued on long term debt	7,570	6,930
Long term debt instalments due within one year	30,181	23,433
	<u>221,205</u>	<u>139,655</u>
Long Term Debt (Note 6)	<u>821,091</u>	<u>744,255</u>
Deferred Income Taxes (Note 7)	<u>90,754</u>	<u>62,653</u>
Minority Interest in Subsidiary Companies (Note 8)	<u>218,208</u>	<u>15,919</u>
Shareholders' Equity:		
Capital stock (Note 9) —		
Preferred shares	392,593	210,597
Common shares	36,405	34,788
Contributed surplus	146,680	142,181
Reinvested earnings	134,885	93,577
	<u>710,563</u>	<u>481,143</u>
Contingencies and Commitments (Note 12)		
	<u><u>\$2,061,821</u></u>	<u><u>\$1,443,625</u></u>



CONSOLIDATED STATEMENT OF CONTRIBUTED SURPLUS
(thousands of dollars)

	Year Ended December 31	
	1978	1977
Balance at beginning of year	\$142,181	\$136,662
Premium on issue of common shares	11,205	7,568
Gain on purchase of preferred shares for cancellation	266	399
Capital stock issue expenses written off	<u>(6,972)</u>	<u>(2,448)</u>
Balance at end of year	<u>\$146,680</u>	<u>\$142,181</u>

CONSOLIDATED STATEMENT OF REINVESTED EARNINGS
(thousands of dollars)

	Year Ended December 31	
	1978	1977
Balance at beginning of year	\$ 93,577	\$ 69,597
Net income for the year	85,631	57,471
	<u>179,208</u>	<u>127,068</u>
Less dividends paid or payable:		
Preferred shares	21,543	13,244
Common shares	<u>22,780</u>	<u>20,247</u>
	<u>44,323</u>	<u>33,491</u>
Balance at end of year	<u>\$134,885</u>	<u>\$ 93,577</u>



CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION
(thousands of dollars)

	Year Ended December 31	
	1978	1977
Source of funds:		
Operations	\$125,756	\$108,542
Common shares	12,822	8,679
Less common shares issued on conversion of —		
Preferred shares	(252)	(1,135)
Debentures	(12,359)	(7,086)
Minority interest - Issuance of preferred shares		
by a subsidiary, A.G. Investments Ltd. (Note 8)	205,000	—
Preferred shares	189,000	75,000
Long term debt	197,594	409,935
Other	3,060	1,378
	<u>\$720,621</u>	<u>\$595,313</u>
Use of funds:		
Plant, property and equipment —		
Gas transmission plant	\$ 64,111	\$ 97,837
Petrochemical facilities	142,747	116,689
Petroleum and mineral resource properties	10,236	11,564
Manufacturing and other facilities	16,060	7,898
	<u>233,154</u>	<u>233,988</u>
Funds on deposit for construction expenditures	(29,525)	251,633
Purchase of shares in Husky Oil Ltd. (Note 11)	254,816	—
Purchase of minority interests (Note 11)	2,961	3,793
Deferred charges	26,020	16,427
Retirement of long term debt	108,399	69,904
Dividends to —		
Shareholders	44,323	33,491
Minority shareholders of subsidiaries	5,889	1,480
Cost of issuing securities	6,972	2,448
Purchase of preferred shares for cancellation	6,486	5,123
Working capital increase (decrease)	<u>61,126</u>	<u>(22,974)</u>
	<u>\$720,621</u>	<u>\$595,313</u>



SUMMARY OF ACCOUNTING POLICIES

December 31, 1978

The consolidated financial statements of the Company have been prepared by management in accordance with generally accepted accounting principles consistently applied. These financial statements have, in management's opinion, been properly prepared within reasonable limits of materiality and in light of information available up to February 28, 1979. The principal accounting policies are summarized as follows:

Principles of consolidation

The consolidated financial statements include the accounts of the Company and all subsidiaries, principally:

100% Owned

The Alberta Gas Ethylene Company Ltd.
 AGESEC Security Corporation
 A.G. Industries International, Inc.
 A.G. Investments Ltd. (see Note 8)
 A.G. Pipe Lines Inc.
 A.G. Pipe Lines (Canada) Ltd.
 Algas Engineering Services Ltd.
 Algas Properties Ltd.
 Algas Mineral Enterprises Ltd.
 Algas Resources Ltd.
 Energy Equipment & Systems Inc. (80% at
 December 31, 1977 - see Note 11)
 Grove Valve and Regulator Company

Partially Owned

Pan-Alberta Gas Ltd. (50.005% owned)
 WAGI International, S.p.A.
 (66.7% owned; 53.3% at December 31, 1977 -
 see Note 11)

Companies acquired have been accounted for using the purchase method.

Investments in unincorporated petrochemical joint ventures are accounted for by the proportionate consolidation method. The companies' share of aggregate assets, liabilities, revenues and expenses accounted for by this method as at December 31, 1978 is \$126,400,000, \$34,700,000, \$9,800,000 and \$5,600,000 respectively (\$58,800,000 and \$1,400,000 for assets and liabilities respectively at December 31, 1977). The difference between assets and liabilities represents the investment in the joint ventures financed by the Company and its subsidiaries.

Foreign currency translation

Accounts in foreign currencies have been translated to Canadian dollars using current rates of exchange for current assets and current liabilities, historical rates of exchange for non-current assets and non-current liabilities and average rates for the year for revenue and expenses, except depreciation which is translated at the rate of exchange applicable to the related assets. Gains or losses resulting from exchange adjustments are included in income.

Inventories

Manufacturing inventories are carried at the lower of cost and net realizable value. Other materials and supplies are carried at cost.

Investments and advances

The Company accounts for its investment in Alberta Gas Chemicals Ltd. and Steel Alberta Ltd. (both 50% owned) by the equity method. The Company's investment in Husky Oil Ltd. (48% owned at December 31, 1978) has been accounted for by the equity method since July 1, 1978 (effective date of acquisition of a significant holding).

Other investments are carried at cost.

Plant, property and equipment

Plant, property and equipment is carried at cost.

An allowance for funds used during construction is capitalized when recoverable under cost of service contracts. For gas transmission plant under construction the rate is equivalent to the annual rate of return and for petrochemical facilities the rate is the agreed cost of capital. For plant not subject to cost of service contracts, related interest incurred during the construction phase is capitalized.

Depreciation of gas transmission plant approximates a composite annual rate of 4.6% on cost in 1978 (1977 - 4.75%) (see Note 1). Petrochemical and manufacturing facilities and other plant, property and equipment are depreciated on a straight line basis at annual rates varying from 3% to 20% which rates are designed to write these assets off over their estimated useful lives.

The companies follow the full cost method of accounting wherein all costs relative to the exploration and development of petroleum and mineral resource properties, whether productive or non-productive, are capitalized and depleted on the composite unit of production method based on estimated proven reserves.

Unamortized debt discount and expense

These amounts are being amortized over the terms of the respective issues.

Deferred charges

Costs relating to Northern gas transmission projects and other projects which may benefit future periods are being deferred pending evaluation and completion of the projects. Deferred charges applicable to projects which have been terminated are expensed.

The cost of license agreements and patents is amortized on a straight line basis over their estimated lives.

Long term debt

Short term borrowings which are expected to be repaid from the proceeds of long term financing are included in long term debt.

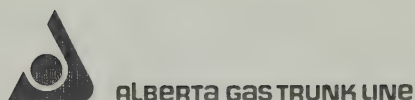
Long term lease obligations which relate to transactions which are similar in nature to a purchase have been capitalized and included in long term debt.

Income taxes

The companies follow the tax allocation basis of recording income taxes on all income except for gas transmission and certain petrochemical operations which are subject to cost of service contracts. Income taxes are provided on these sources of income only to the extent that they are included in allowable costs of service under such contracts (see Note 1).

Earnings per common share

Earnings per common share are calculated using the weighted average number of shares outstanding during the period. The calculation of earnings per common share on a fully diluted basis assumes conversion of all securities and exercise of all stock options which would have a dilutive effect on earnings per share.



NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 1978

1. Gas transmission

a) Operations

Gas plant in service consists primarily of facilities for the transmission of gas owned by TransCanada PipeLines Limited, Alberta and Southern Gas Co. Ltd., Westcoast Transmission Company Limited, Westcoast Transmission Company (Alberta) Ltd., Consolidated Natural Gas Limited and Pan-Alberta Gas Ltd.

The transportation contracts with the above-named owners provide that the Company will be paid transportation charges on a cost of service basis which includes operating expenses, income taxes (see Notes 1(b) and 7) and depreciation of its facilities together with an annual return on rate base, which was 10.375% to November 30, 1977, 10.75% for December, 1977 and 10.55% thereafter (see Note 1(b)).

b) Regulatory matters

Depreciation and income taxes —

The Public Utilities Board of Alberta (as a result of complaints by certain natural gas producers) issued an order to the Company on November 8, 1978 in respect of its depreciation rates and its treatment of income tax. Following application by the Company for review and variance of the decision, the Board provided clarification in written rulings on December 21, 1978 ordering the Company, for the twelve month period ending December 31, 1978, to calculate depreciation in accordance with the rates, methods and manner in effect immediately prior to November 1, 1975, and to charge income taxes on a taxes payable ("flow-through") basis for gas transmission. The Company has applied for and obtained leave to appeal and a suspension of the decision. It is anticipated the appeal will be heard by the middle part of 1979.

The Company's 1978 financial statements reflect no adjustment to depreciation charges as a result of the PUB decision and, as well, reflect charges for income taxes on a tax allocation ("normalized") basis for gas transmission. If the Company is not successful in its appeal and is required to refund an amount determined by recalculating all the 1978 monthly Cost of Service billings, the effect could be a reduction of 1978 cash flow of approximately \$20 million and no material impact on reported net income for 1978.

Commencing January 1, 1979, the Company is charging for depreciation in accordance with the decision of the PUB but will continue to charge income taxes on a tax allocation ("normalized") basis for gas transmission.

As a result of a 1979 complaint, the Public Utilities Board issued an interim order which would have the effect of placing the gas transmission operations on a taxes payable ("flow-through") basis until final determination. The Company has been granted leave to appeal and has also obtained a suspension of this interim order. It is anticipated that this appeal will also be heard by the middle part of 1979.

Rate of return —

In December, 1978 the Public Utilities Board of Alberta (as a result of a complaint by certain natural gas producers and shippers) ordered the Company to reduce its rate of return on rate base from 10.75% to 10.55% for the twelve months ended December 31, 1978. This adjustment had the effect of reducing 1978 net income by approximately \$1,000,000.

2. Funds on deposit for construction expenditures

Proceeds from the issuance and sale of First Income Debentures and Second Income Debentures (see Note 6) are invested in certificates of deposit to be drawn down against petrochemical construction expenditures. The funds on deposit at December 31, 1978 and December 31, 1977 include U.S. deposits of \$192,108,000 (U.S. \$174,426,000) and \$221,633,000 (U.S. \$201,143,000) respectively and Canadian deposits of \$30,000,000.

3. Investment and advances

	December 31	
	1978	1977
	(thousands of dollars)	
Husky Oil Ltd. (Notes 8 and 11)	\$263,088	\$ —
Alberta Gas Chemicals Ltd.	12,776	8,740
Steel Alberta Ltd.	10,529	8,212
Other	852	1,302
	<u>\$287,245</u>	<u>\$ 18,254</u>

4. Plant, property and equipment

	December 31			
	1978			1977
	(thousands of dollars)			
	Cost	Accumulated Depreciation and Depletion	Net	Net
Gas transmission plant (Note 1)				
In service	\$ 894,291	\$213,554	\$ 680,737	\$607,938
Under construction	16,784	—	16,784	62,336
Petrochemical facilities (Note 12)				
In service	89,063	919	88,144	—
Under construction	264,125	—	264,125	186,784
Petroleum and mineral resource properties	60,011	5,030	54,981	46,482
Manufacturing and other facilities	43,780	11,140	32,640	19,880
	<u>\$1,368,054</u>	<u>\$230,643</u>	<u>\$1,137,411</u>	<u>\$923,420</u>

5. Deferred charges

	December 31	
	1978	1977
	(thousands of dollars)	
Gas transmission — Northern projects	\$ 41,706	\$ 26,210
Arctic Pilot Project	10,463	5,838
Q & M project	3,227	250
Unamortized debt discount and expense	3,968	4,441
License agreements and patents	1,459	1,706
Other	7,598	7,913
	<u>\$ 68,421</u>	<u>\$ 46,358</u>

Gas transmission — Northern projects —

The Company is one of the principal sponsors of the Alaska Highway Gas Pipeline Project which has as its objective the transportation of natural gas from Alaska through Canada to the United States of America. The Company anticipates that its share of 1979 expenditures relating to this project will amount to approximately \$28,000,000. Upon commencement of construction the Company may incur or be responsible for large expenditures in respect of this project.

Arctic Pilot Project —

The Company and Petro-Canada have formed a joint venture (Arctic Pilot Project) for the purpose of determining the economic feasibility of producing, processing and transporting natural gas from the Arctic Islands. The costs of the project through the regulatory stage are estimated to be \$36,400,000 of which the Company's share would be \$12,200,000.

Q & M project —

In 1977 the Company initiated the Q & M project relating to the construction and operation of a major gas transmission system to transport Alberta natural gas to Quebec, New Brunswick and Nova Scotia. Costs associated with funding this project through the regulatory stage are estimated to be \$7,800,000, of which the Company's share would be \$5,500,000 with the balance provided by Petro-Canada.

6. Long term debt

(thousands of dollars)

	Maturity	December 31	
		1978	1977
First Mortgage Bonds			
5 ¹ / ₄ % Series A	1981	\$ 6,536	\$ 8,513
5 ³ / ₄ % Series B (1978 - U.S. \$16,899; 1977 - U.S. \$21,372)	1981	16,899	21,372
5 ¹ / ₂ % Series C	1985	8,870	9,949
8 ³ / ₄ % Series D (1978 - U.S. \$45,900; 1977 - U.S. \$48,400)	1989	49,262	51,945
Secured Debentures			
6 ¹ / ₂ % Series A	1981	9,539	10,198
5 ³ / ₄ % Series B	1985	18,727	19,554
Unsecured Debentures			
7 ¹ / ₂ % Series 1 (convertible) (Note 9)	1990	6,760	19,119
9 ³ / ₄ % Series 2	1990	18,198	18,479
9 ¹ / ₄ % Series 3	1990	16,315	16,676
8% Series 4	1991	45,735	46,715
8 ¹ / ₈ % Series 5	1992	32,705	33,298
11 ³ / ₈ % Series 6	1995	58,240	59,165
		<u>287,786</u>	<u>314,983</u>
Ethylene Plant Financing			
8 ¹ / ₄ % Secured Notes (1978 - U.S. \$325,000; 1977 - U.S. \$275,000)	1998	361,143	303,035
5 ³ / ₈ % First Income Debentures (1978 - U.S. \$325,000; 1977 - U.S. \$275,000) . . .	1987	361,143	303,035
Second Income Debentures	1987	30,000	30,000
Less certificates of deposit (1978 - U.S. \$325,000; 1977 - U.S. \$275,000) pledged as security against the First Income Debentures		<u>(361,143)</u>	<u>(303,035)</u>
		<u>391,143</u>	<u>333,035</u>
Algas Mineral Enterprises Ltd. - Income Debentures (U.S. \$58,365)		<u>66,070</u>	<u>—</u>
Cochin Pipe Line and Ethane Gathering System (Note 12)			
A.G. Pipe Lines (Canada) Ltd.		35,000	—
A.G. Pipe Lines Inc.		—	—
		<u>35,000</u>	<u>—</u>
Polyvinyl Chloride Plant Financing (U.S. \$15,500) (Note 12)		<u>17,515</u>	<u>—</u>
Other Bank Loans		<u>41,698</u>	<u>105,186</u>
Other Loans		<u>6,337</u>	<u>9,678</u>
Long Term Lease Obligations		<u>5,723</u>	<u>4,806</u>
		851,272	767,688
Less instalments due within one year shown as current liability		<u>30,181</u>	<u>23,433</u>
		<u>\$821,091</u>	<u>\$744,255</u>

First Mortgage Bonds and Secured Debentures —

The First Mortgage Bonds are secured by a first fixed and specific mortgage, pledge and charge and a first floating charge on the assets of the Company. The Secured Debentures are secured in the same manner, subject to the prior charge of the First Mortgage Bonds.

The First Mortgage Bonds, Series B and Series D, are payable in U.S. dollars and have been converted into Canadian dollars at par and 1.07325 respectively. Certain customers of the Company have agreed that the foreign exchange gain or loss relative to the principal and interest on these bonds is for their account.

Ethylene Plant Financing —

In November, 1977 Alberta Gas Ethylene (either directly or through a subsidiary) entered into several financing arrangements, principally:

- a) Note purchase agreements providing for the issuance of U.S. \$325,000,000 Secured Notes with provision, subject to certain conditions, for the issuance of further Secured Notes of up to U.S. \$48,750,000. The proceeds of the issuance of the Secured Notes are invested in certificates of deposit which bear interest at a rate equivalent to that due on the Secured Notes. The Secured Notes are guaranteed by Alberta Gas Ethylene and are secured by a first fixed and floating charge upon the ethylene plant, the ethylene pipeline and related assets of Alberta Gas Ethylene, and by assignments of certain related contracts.
- b) An Income Debenture purchase agreement providing for the issuance of First Income Debentures up to a maximum of U.S. \$373,750,000. The issuance of the Income Debentures must occur simultaneously with and is conditional upon the issuance of the Secured Notes. The First Income Debentures are secured by certificates of deposit referred to in (a).

The take or pay contract with Dow Chemical of Canada, Limited (see Note 12) provides that all foreign exchange gains or losses relating to the funds on deposit (see Note 2) and the First Income Debentures shall be included in cost of service.

- c) \$30,000,000 Second Income Debentures have been issued bearing interest at the prime rate less 1½% and are secured by a second fixed and floating charge upon the ethylene pipeline and related assets of Alberta Gas Ethylene and a second assignment of certain related contracts. The proceeds of the Second Income Debentures are invested in certificates of deposit which are pledged by Alberta Gas Ethylene as security for the Second Income Debentures.

Algas Minerals Financing —

In March, 1978 Algas Minerals refinanced substantially all of its bank loans through income debenture purchase agreements, secured by natural gas properties and a general assignment of book debts. Interest on these income debentures varies with the London Inter Bank Offering Rate and was approximately 7% at December 31, 1978. The income debentures mature on various dates between 1986 and 1989.

Cochin Pipe Line and Ethane Gathering System Financing —

A.G. Pipe Lines (Canada) Ltd. ("A.G. Canada"), in connection with the long term financing of its share of the cost of the Canadian segment of the Cochin Pipe Line and of the Ethane Gathering System, pursuant to a loan agreement, issued a \$35,000,000 secured income debenture convertible to secured term notes. The income debenture or term notes will mature on December 31, 1987 and are secured by a first floating charge upon a portion of the assets of A.G. Canada, a first fixed charge on certain agreements (insofar as they relate to the Canadian segment of the Cochin Pipe Line) and by a pledge of certificates of deposit. Interest on the income debenture was approximately 7% at December 31, 1978.

A.G. Pipe Lines Inc., in connection with the long term financing of its share of the cost of the United States segment of the Cochin Pipe Line, has entered into a loan agreement providing for the issuance of promissory notes of up to U.S. \$45,000,000, of which no amounts were outstanding at December 31, 1978. The notes will mature on December 31, 1980 with provision for extension, at the option of A.G. Pipe Lines Inc., to December 31, 1987. The promissory notes will be secured by an assignment of certain agreements (insofar as they relate to the United States segment of the Cochin Pipe Line) and a pledge of the shares of A.G. Pipe Lines Inc.

Polyvinyl Chloride Plant Financing —

Long term financing for the polyvinyl chloride plant has been arranged through note purchase agreements which provide for the issuance of 8¾% secured notes Series A due December 15, 1999 up to a maximum of U.S. \$72,680,000. These notes are secured by a first fixed and floating charge upon the property and assets relating to the project and by an assignment of certain related contracts. Repayment on the notes is required to commence in 1984 at an annual rate of 5.88% of the principal amount outstanding. At December 31, 1978 notes of U.S. \$31,000,000 had been issued.

Other Bank Loans —

At December 31, 1978 other bank loans are secured by natural gas properties as to \$317,000 (\$50,332,000 at December 31, 1977) and manufacturing inventories, facilities and accounts receivable as to \$12,105,000 (\$8,250,000 at December 31, 1977) and mature by agreement to 1984. The interest rate will vary during the term of the loans and approximated 11¾% at December 31, 1978 (9% at December 31, 1977).

Other Loans —

Other loans of \$3,966,000 (\$4,557,000 at December 31, 1977) are secured by manufacturing facilities and mature by agreement to 1999. The effective interest rate on the other loans varies and approximated 5% at December 31, 1978 and December 31, 1977.

Sinking Fund and Repayment Requirements —

Sinking fund and repayment requirements in respect of long term debt for the years 1979 to 1983 are: 1979 - \$30,181,000; 1980 - \$48,400,000; 1981 - \$60,007,000; 1982 - \$42,206,000; 1983 - \$44,406,000.

7. Income Taxes

The Company has arranged with certain of its customers to include in its gas transmission charges a portion of the income taxes which have been deferred to future years (see Note 1(b)). Because income taxes related to the Company's transmission operations are a component of its transmission charges, the payment or deferral of such income taxes does not affect net income.

If the tax allocation basis of accounting (under which income tax expense is based on reported income) had been followed in respect of all customers in current and prior years, the cumulative amount of deferred income taxes would have been increased by approximately \$62,000,000 to December 31, 1978 and \$66,000,000 to December 31, 1977.

Income tax expense varies from the amounts that would be computed by applying the Canadian federal and provincial income tax rates of 47% to income before income taxes as shown in the following table:

	1978		1977	
	Amount (thousands of dollars)	% Of Pre-Tax Income	Amount (thousands of dollars)	% Of Pre-Tax Income
Income before income taxes	\$139,042		\$114,599	
"Expected" income tax expense	\$ 65,349	47.0%	\$ 53,861	47.0%
Less adjustment of expected income taxes due to inclusion in pre-tax income of —				
Equity in earnings of affiliates	(7,954)	(5.7)	(1,496)	(1.3)
Petrochemical operations for which income taxes are provided only to the extent they are included in cost of service	(7,598)	(5.5)	(4,036)	(3.5)
Other - net	(2,129)	(1.5)	1,043	0.9
Actual income tax expense	\$ 47,668	34.3%	\$ 49,372	43.1%

8. Minority Interests

	December 31	
	1978	1977
	(thousands of dollars)	
Preferred share equity in A.G. Investments Ltd.	\$205,000	\$ —
Other	13,208	15,919
	\$218,208	\$ 15,919

In November, 1978 a long term financing agreement relating to the acquisition of Husky Oil shares (see Note 11) was completed by a wholly owned subsidiary, A.G. Investments Ltd. The agreement with two Canadian banks provides for the issuance of up to \$255,000,000 principal amount of floating rate (approximately 7.35% at December 31, 1978) preferred shares of A.G. Investments redeemable between 1982 and 1989. The Husky Oil shares have been pledged by A.G. Investments as collateral security for the obligations to the banks under the long term financing agreement.

9. Capital stock

		December 31	
		1978	1977
		(thousands of dollars)	
a)	Preferred shares		
i)	Preferred shares of a par value of \$100 each		
	Authorized — 2,000,000 shares		
	Issued — Cumulative and Redeemable		
	4¾% Series C - 146,437 shares (1977 - 155,960)	\$ 14,644	\$ 15,596
	5⅜% Convertible Series D - 8,250 shares (1977 - 10,774)	825	1,077
ii)	Preferred shares of a par value of \$25 each		
	Authorized — 10,000,000 shares		
	Issued — Cumulative and Redeemable		
	7¾% - 916,971 shares	22,924	22,924
	9¾% - 1,471,995 shares (1977 -1,535,995)	36,800	38,400
	9.76% - 2,136,000 shares (1977 -2,304,000)	53,400	57,600
	7.60% - 3,000,000 shares	75,000	75,000
iii)	Second preferred shares of a par value of \$25 each		
	Authorized — 7,560,000 shares		
	Issued — Cumulative and Redeemable		
	6⅜% Convertible - 7,560,000 shares	189,000	—
		<u>\$392,593</u>	<u>\$210,597</u>

On September 19, 1978 the Company increased the authorized share capital to include a class of 7,560,000 Second Preferred Shares of the par value of \$25 each and designated those shares as 6⅜% Cumulative Redeemable Convertible Second Preferred Shares, which shares were issued and sold for \$189,000,000 cash pursuant to an Underwriting Agreement dated September 19, 1978. The 6⅜% Preferred Shares are redeemable on or after November 15, 1981 and prior to November 15, 1983 at \$26.25 per share if the weighted average price at which the Class "A" common shares were traded was not less than 125% of the conversion price. These shares are redeemable from November 15, 1983 to November 15, 1984 at \$26.25 per share plus accrued and unpaid dividends and at reducing amounts thereafter. In addition, the Company shall annually, commencing in 1982, use all reasonable efforts to purchase for cancellation 216,000 6⅜% Preferred Shares at a price not in excess of \$25.00 per share plus accrued and unpaid dividends and costs of purchase.

The 7.60% Preferred Shares are not redeemable until on or after February 5, 1983, at which time they are redeemable to February 15, 1984 at \$26.25 per share plus accrued and unpaid dividends and at reducing amounts thereafter. In addition, the Company shall annually use all reasonable efforts to purchase for cancellation 90,000 7.60% Preferred Shares at a price not in excess of \$25 per share plus accrued and unpaid dividends and costs of purchase.

The Company is required to call for redemption and redeem annually, through the operation of cumulative mandatory sinking funds, 64,000 9¾% Preferred Shares and 96,000 9.76% Preferred Shares at par value plus accrued and unpaid dividends. In addition, the Company may call for redemption and redeem annually, through the operation of non-cumulative optional sinking funds, 48,000 9¾% Preferred Shares and 72,000 9.76% Preferred Shares at par value plus accrued and unpaid dividends.

The Company is required to set aside on its books as Purchase Funds \$2,175,000 annually or such lesser amount as would increase the Funds to \$4,350,000 for the purchase for cancellation, if and when available, of its 4¾% Cumulative Redeemable Preferred Shares Series C and 5⅜% Cumulative Redeemable Convertible Preferred Shares Series D, at a price not in excess of \$100 per share plus costs of purchase, and its 7¾% Cumulative Redeemable Preferred Shares, at a price not in excess of \$25 per share plus accrued and unpaid dividends and costs of purchase.

The Preferred Shares Series C are redeemable at \$103 per share on or before May 15, 1980, the Preferred Shares Series D at \$106 per share on or before May 15, 1980 and the 7¾% Preferred Shares at \$27 per share on or before May 15, 1979 and at reducing amounts after those dates.

During the year the Company purchased for cancellation 9,523 4¾% Preferred Shares at a discount of \$266,000 which has been credited to contributed surplus. In addition, 2,524 5⅜% Preferred Shares were converted into 28,254 Class "A" common shares and 64,000 9¾% Preferred Shares and 168,000 9.76% Preferred Shares were redeemed at par.

b)	Common shares	
i)	Authorized:	
	45,000,000	Class "A" common shares of the par value of \$1.25 each (non-voting except for the election of seven directors)
	2,004	Class "B" common shares of the par value of \$5.00 each

On September 19, 1978 the Company increased the authorized Class "A" common shares from 32,000,000 to 45,000,000 Class "A" common shares.

ii) Issued:

	Shares		Par Value	
	Class A	Class B	Class A	Class B
			(thousands of dollars)	
Balance at December 31, 1977	27,824,181	1,653	\$34,780	\$ 8
Issued during the year	1,293,273	—	1,617	—
Balance at December 31, 1978	29,117,454	1,653	\$36,397	\$ 8

Class "A" common shares were issued during the year as follows:

	Shares	Consideration		
		Share Capital	Contributed Surplus	Total
		(thousands of dollars)		
On conversion of —				
5 ³ / ₈ % Preferred Shares Series D	28,254	\$ 35	\$ 217	\$ 252
7 ¹ / ₂ % Sinking Fund Debentures Series 1	1,246,819	1,559	10,800	12,359
On exercise of options granted to officers and employees	18,200	23	188	211
	1,293,273	\$1,617	\$11,205	\$12,822

iii) Reserved:

Class "A" common shares were reserved at December 31, 1978 as follows:

	Shares
For conversion of the 5 ³ / ₈ % Cumulative Redeemable Convertible Preferred Shares, Series D until July 15, 1980, on a conversion basis of 11.20 common shares for each preferred share	92,400
For conversion of the 6 ³ / ₈ % Cumulative Redeemable Convertible Second Preferred Shares until November 15, 1986, on a conversion basis of 1.4 common shares for each preferred share	10,584,000
For conversion of the 7 ¹ / ₂ % Convertible Sinking Fund Debentures, Series 1 until July 15, 1982, on a conversion basis of 100 common shares for each \$1,000 principal amount of Series 1 Debentures	676,000
Under stock option plans, options are outstanding to officers and employees to purchase 506,100 common shares at prices ranging from \$11.25 to \$15.75 per share (328,800 shares at December 31, 1977 at prices ranging from \$11.25 to \$15.25) exercisable in annual instalments on a cumulative basis from 1979 to 1983 and 267,300 common shares are reserved but unallocated (462,800 at December 31, 1977)	773,400
	12,125,800

On August 14, 1978 the conversion basis for the 7¹/₂% Convertible Sinking Fund Debentures, Series 1 was changed from 101.61 Class "A" common shares to 100 Class "A" common shares for each \$1,000 principal amount of Series 1 Debentures.

10. Remuneration of directors and senior officers

The aggregate remuneration paid during the year by the Company and its subsidiaries to directors of the Company, as such, was \$150,000 (1977 - \$124,000) and, directly or indirectly to senior officers of the Company, as such, was \$919,000 (1977 - \$560,000).

In 1978 the aggregate amount paid in respect of the year 1977 to the trustee of the Company's Profit Sharing Deferred Bonus Plan for the benefit of senior officers was \$223,000 (in 1977 - \$210,000).

11. Acquisitions

As at December 31, 1978 the Company has acquired 5,290,200 shares (48%) of the issued and outstanding common shares of Husky Oil for \$254,816,000 financed primarily through the issuance of \$205,000,000 floating rate preferred shares (see Note 8) by A.G. Investments Ltd.

Effective January 1, 1978 A.G. Industries acquired the remaining 20% minority interest of Energy Equipment & Systems Inc. for \$2,961,000, increasing the Company's interest in WAGI International to 66²/₃%. The minority interest in the net income of Energy Equipment & Systems Inc. for the year ended December 31, 1977 amounted to \$1,205,000.

12. Contingencies and Commitments

- a) The Company has undertaken to co-operate with the other shareholder to the end of causing Alberta Gas Chemicals to repay any bank indebtedness which may arise from a bank line of credit (\$11,812,000 at December 31, 1978) arranged to acquire and develop certain natural gas reserves to provide feedstock to Alberta Gas Chemical's two methanol plants. Similarly, the Company has undertaken to co-operate with the other shareholder to the end of causing Alberta Gas Chemicals, Incorporated, a wholly-owned subsidiary of Alberta Gas Chemicals, to meet all obligations which may be incurred under its line of credit (U.S. \$3,200,000 at December 31, 1978).

In May, 1978 a complaint was filed with the United States Treasury Department charging Alberta Gas Chemicals with selling methanol into the United States market at prices which constitute dumping under United States law. Alberta Gas Chemicals believes there is no basis for these charges and is contesting the allegations.

- b) The Company (either directly or through subsidiaries including Alberta Gas Ethylene), Dow Canada, Dome Petroleum Limited, Pacific Petroleum Ltd., Shell Canada Limited and Alberta Energy Company Ltd. have entered into several contracts with respect to the development of a petrochemical complex in Alberta, principally:
- i) Alberta Gas Ethylene has agreed to construct a 1.2 billion pound per year ethylene plant near Red Deer, Alberta at an estimated cost of \$370,000,000, including allowance for funds used during construction and start-up costs, the production from which will be purchased by Dow Canada on a cost of service basis under a take or pay contract;
 - ii) Dow Canada, Dome, Pacific, Shell (either directly or through subsidiaries or affiliates), A.G. Canada and A.G. Pipe Lines Inc. have agreed to construct, own and operate the Cochin Pipe Line for the transportation of ethane and ethylene to eastern Canadian and United States markets. A.G. Canada and A.G. Pipe Lines Inc. have a 20% interest in this pipeline which commenced operations in the latter part of 1978;
 - iii) A.G. Canada, Dome and Alberta Energy formed a joint venture on an equal basis for the construction, ownership and operation of a pipeline gathering system and storage cavern for use in the transportation of ethane from extraction facilities to the ethylene plant and to the western terminal of the Cochin Pipe Line. This project commenced operations in 1978;
 - iv) Dome, acting as agent for the Company (to the extent of 20%), Dow Canada, Pacific, Shell and itself, has agreed on a cost of service basis under take or pay contracts to purchase up to 44,000 barrels per day of surplus ethane from Alberta Gas Ethylene for shipment to the United States through the Cochin Pipe Line on a cost of service basis under a take or pay contract.
- c) In November, 1976 the Company and Diamond Shamrock Canada Ltd. formed a limited partnership on an equal basis to construct, own and operate a polyvinyl chloride plant near Fort Saskatchewan, Alberta. The cost of the plant, having an annual capacity of 220 million pounds of polyvinyl chloride, is estimated to be \$103,000,000 including interest and start-up costs. To December 31, 1978, the Company's share of the cost of this plant amounted to \$31,073,000 (\$7,117,000 to December 31, 1977).
- d) The Company will be responsible for costs relating to certain projects currently in the feasibility and development stages (see Note 5).

Auditors' Report

To the Shareholders of The Alberta Gas Trunk Line Company Limited

We have examined the consolidated balance sheet of The Alberta Gas Trunk Line Company Limited as at December 31, 1978 and the consolidated statements of income, reinvested earnings, contributed surplus and changes in financial position for the year then ended. For The Alberta Gas Trunk Line Company Limited and for those other companies of which we are the auditors and which are consolidated in these financial statements, our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. For other companies consolidated or accounted for by the equity method we have relied on the reports of the auditors who have examined their financial statements.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Clarkson, Gordon & Co.

Calgary, Canada
March 1, 1979

Chartered Accountants



TEN YEAR FINANCIAL REVIEW

(thousands of dollars except net income and dividends per share data)

	1978	1977
Operating revenue	\$ 464,131	348,779
Equity in net income of affiliates	\$ 16,924	3,184
Allowance for funds used during construction	\$ 23,777	13,831
Costs and expenses	\$ 284,772	186,725
Depreciation and depletion	\$ 46,073	38,599
Net operating income	\$ 173,987	140,470
Interest and expense on long term debt (net of interest income)	\$ 41,113	28,055
Gain on foreign currency	\$ 6,168	2,184
Income before income taxes and minority interest	\$ 139,042	114,599
Income taxes	\$ 47,668	49,372
Minority interest	\$ 5,743	7,756
Net income	\$ 85,631	57,471
Net income per common share		
Basic	\$ 2.31	1.64
Fully diluted	\$ 2.14	1.58
Dividends paid per common share	\$ 0.7772	0.7344
Average common shares outstanding during year (thousands)	28,361	27,421
Working capital (deficiency) at year end	\$ 125,431	64,305
Additions to plant, property and equipment	\$ 233,154	233,988
Investment in plant, property and equipment (cost)	\$1,368,054	1,110,991
Investment in plant, property and equipment (net)	\$1,137,411	923,420
Average rate base	\$ 657,946	583,673
Average rate of return	10.55%	10.406%
Long term debt (less due within one year)	\$ 821,091	744,255
Shareholders' equity		
Preferred shares	\$ 392,593	210,597
Common shares	\$ 317,970	270,546
Shareholders		
Number of preferred shareholders	25,564	12,111
Number of common shareholders	31,798	29,555

1976	1975	1974	1973	1972	1971	1970	1969
71,397	141,844	89,860	78,715	64,666	56,351	45,469	31,930
1,620	1,993	135	—	—	—	—	—
8,544	4,030	1,228	1,668	2,635	1,027	1,248	2,006
17,896	66,338	31,434	23,099	19,664	16,162	13,409	8,715
29,493	20,861	13,112	12,408	11,227	10,282	8,090	6,211
04,172	60,668	46,677	44,876	36,410	30,934	25,218	19,010
29,470	25,015	22,546	24,124	22,343	19,535	15,236	9,190
—	—	—	—	—	—	—	—
4,702	35,653	24,131	20,752	14,067	11,399	9,982	9,820
0,338	9,188	6,321	5,884	—	—	—	—
4,947	415	—	—	—	—	—	—
9,417	26,050	17,810	14,868	14,067	11,399	9,982	9,820
1.42	1.08	0.85	0.79	0.75	0.66	0.59	0.62
1.34	1.04	0.83	0.77	0.74	0.64	0.57	0.60
0.6136	0.52	0.445	0.42	0.3975	0.375	0.375	0.375
2,021	21,344	17,371	16,793	16,530	14,584	13,368	12,224
7,279	6,614	15,179	(4,663)	2,716	5,590	(5,696)	(5,864)
2,244	108,306	44,255	26,804	44,604	60,892	82,808	68,251
3,007	680,009	578,448	535,009	507,903	463,761	404,003	321,611
2,674	558,472	477,539	446,396	432,000	398,622	348,384	274,615
6,627	449,067	438,411	416,167	386,000	355,169	294,766	212,550
375%	9.66%	9.00%	9.00%	8.75%	8.42%	8.13%	8.00%
1,311	377,369	305,370	315,113	315,329	292,013	251,316	176,980
2,254	45,413	47,982	30,547	32,142	33,888	41,607	44,548
9,936	162,674	146,190	103,455	95,694	86,508	54,331	49,428
2,524	6,894	7,195	7,977	8,289	8,833	10,385	10,781
3,405	23,508	23,184	22,148	21,374	22,277	21,838	22,543

Company Locations and General Information

Head Office

2800 Bow Valley Square 2
205 - 5th Avenue S.W.
P.O. Box 2535
CALGARY, Alberta
T2P 2N6 231-9100

Other Calgary Offices:

Calgary Service Centre
7210 Blackfoot Trail S.E.
P.O. Box 2535
CALGARY, Alberta
T2P 2N6 252-8821

Works Department
2611 - 58th Avenue S.E.
P.O. Box 2535
CALGARY, Alberta
T2P 2N6 272-2445

Edmonton Offices:

Petroleum Plaza
North Tower
9945 - 108th Street
EDMONTON, Alberta
T5K 2G6 426-0766

Edmonton Service Centre
15810 - 114th Avenue
P.O. Box 3240, Station 'D'
EDMONTON, Alberta
T5L 4J1 425-5723

District Offices:

District No. 1 Headquarters
9615 - 52nd Street S.E.
P.O. Box 2535
CALGARY, Alberta
T2P 2N6 279-7201

District No. 2 Headquarters
P.O. Box 819
BROOKS, Alberta
T0L 0J0 362-2838

District No. 3 Headquarters
P.O. Box 1808
EDSON, Alberta
T0E 0P0 723-3371

District No. 4 Headquarters
P.O. Box 1650
VEGREVILLE, Alberta
T0B 4L0 632-3336

Offices of Principal Subsidiaries and certain Affiliates

Alberta Gas Chemicals Ltd.
400 - 11456 Jasper Avenue
EDMONTON, Alberta
T5K 0M1 482-6361

P.O. Box 1090
MEDICINE HAT, Alberta
T1A 7H1 527-8141

Algas Engineering Services Ltd.
2800 Bow Valley Square 2
205 - 5th Avenue S.W.
CALGARY, Alberta
T2P 2N6 231-9627

Algas Mineral Enterprises Ltd.
700 Home Oil Tower
324 - 8th Avenue S.W.
P.O. Box 2870
CALGARY, Alberta
T2P 2Z5 261-3630

Algas Resources Ltd.
400 Bow Valley Square 2
205 - 5th Avenue S.W.
P.O. Box 9294
CALGARY, Alberta
T2P 2W5 231-9683

Foothills Pipe Lines (Alta.) Ltd.
Foothills Pipe Lines (North B.C.) Ltd.
Foothills Pipe Lines (Sask.) Ltd.
Foothills Pipe Lines (South B.C.) Ltd.
1600 Bow Valley Square 2
205 - 5th Avenue S.W.
P.O. Box 9083
CALGARY, Alberta
T2P 2W4 265-8100

Foothills Pipe Lines (South Yukon) Ltd.
500, 635 - 6th Avenue S.W.
CALGARY, Alberta
T2P 0T5 261-7040

308 Steele Street
WHITEHORSE, Yukon
Y1A 2C5 (403) 667-7624

Foothills Pipe Lines (Yukon) Ltd.
1600 Bow Valley Square 2
205 - 5th Avenue S.W.
P.O. Box 9083
CALGARY, Alberta
T2P 2W4 265-8100

Suite 930, Metropolitan Life Bldg.
99 Bank Street
OTTAWA, Ontario
K1P 6B9 (613) 236-7163

Grove Valve and Regulator Company
6529 Hollis Street
OAKLAND, California
94608 (415) 655-7700

Pan-Alberta Gas Ltd.
350 Bow Valley Square 1
202 - 6th Avenue S.W.
Box 9660
CALGARY, Alberta
T2P 2R9 265-1763

Q & M Pipe Lines Ltd.
1700 Bow Valley Square 1
202 - 6th Avenue S.W.
P.O. Box 2535
CALGARY, Alberta
T2P 2N6 231-9610

620 Crown Trust Company Building
1130 Sherbrooke Street West
MONTREAL, Quebec
H3A 2M8 (514) 845-0168

The Alberta Gas Ethylene Company Ltd.
Suite 500, BP House
333 - 5th Avenue S.W.
CALGARY, Alberta
T2P 3B6 263-8130

JOFFRE, Alberta
T0C 1S0 (403) 343-8211

5015 - 48th Street
RED DEER, Alberta
T4N 1S9 (403) 343-7447

WAGI International, S.p.A.
P. le del Caravaggio, I/D 00147
ROME, Italy (6) 524-0241

SOLICITORS

Howard, Dixon, Mackie, Forsyth

AUDITORS

Clarkson, Gordon & Co.

STOCK EXCHANGE LISTINGS

CLASS "A" COMMON SHARES
Alberta Stock Exchange
Montreal Stock Exchange
Toronto Stock Exchange

PREFERRED SHARES

Alberta Stock Exchange
Montreal Stock Exchange for
7.60% and 6 3/8% Preferred
Shares only
Toronto Stock Exchange

TRANSFER AGENTS AND REGISTRARS

CLASS "A" COMMON SHARES
National Trust Company, Limited in
Vancouver, Calgary, Edmonton,
Winnipeg, Toronto and Montreal.
Canada Permanent Trust Company
as agent for National Trust
Company, Limited in Regina.
CLASS "B" COMMON SHARES
National Trust Company, Limited in
Calgary.

PREFERRED SHARES

Crown Trust Company in Vancouver,
Calgary, Winnipeg, Toronto and
Montreal, except for 6 3/8%
Preferred Shares.
Canada Permanent Trust Company as
agent for Crown Trust Company
in Edmonton and Regina.
Royal Trust Company as agent for
Crown Trust Company in Halifax for
7.60% Preferred Shares only.
The Canada Trust Company in
Vancouver, Calgary, Edmonton,
Regina, Winnipeg, Toronto,
Montreal, and Halifax for 6 3/8%
Preferred Shares only.

Duplicate Annual Reports

Some holders of AGTL securities receive more than one copy of our annual report and other material mailed to shareholders. We make an effort to eliminate duplications of such mailings; however, if securities are registered in different names and addresses, multiple copies will be received. Those security holders receiving more than one copy of material should contact either the Company or the appropriate registrar to consolidate their holdings of each security under one name.

Annual Meeting

The Annual Meeting of the shareholders of the Company will be held at the Calgary Convention Centre, Calgary, Alberta, on May 11, 1979, at 2:00 p.m.

Les personnes désirant des exemplaires en français du présent rapport sont priées de s'adresser au Secrétaire de la Compagnie.

P.O. Box 2535, CALGARY, ALBERTA
T2P 2N6

CONTRIBUTIONS:

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